U. S. DEPARTMENT OF LABOR
JAMES J. DAVIS, Secretary
CHILDREN'S BUREAU
GRACE ABBOTT, Chief

CHILD LABOR IN FRUIT AND HOP GROWING DISTRICTS OF THE NORTHERN PACIFIC COAST

BY

ALICE CHANNING

Bureau Publication No. 151

WASHINGTON
GOVERNMENT PRINTING OFFICE
1926

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
15 CENTS PER COPY

U. S. SUPERINTENDENT OF DOCUMENTS.
FEB 24 1926

CONTENTS

	Page
Letter of transmittal	v
Introduction	1
Child labor in orchards and hop yards of the Yakima Valley, Wash., and the Willamette Valley, Oreg	3
Local workers	4
Families of child workers	4
Work of children	6
Schooling of child workers	15
Migratory workers	16
The labor supply	16
Recruiting workers	20
Work of children	20
Schooling of child workers	27
Camps for migratory workers	30
Child labor in berry fields of the Puyallup Valley, Wash	34
The labor supply	34
Local workers	34
Migratory workers	36
Work of local and migratory children	37
Age and sex of child workers	37
Kinds of work	38
Hours	40
Duration	42
Earnings	43
Schooling of local and migratory workers	44
Berry pickers' camps	45
Conclusion	47
Appendix.—Work of mothers in fruit and hop growing districts	50

ILLUSTRATIONS

	Facing page
Picking prunes, Yakima Valley	32
Raspberry picker, Puyallup Valley	32
Picking hops, Willamette Valley	32
Types of frame shacks, Puyallup Valley	33
Cooking arrangements, camp for hop pickers, Willamette Valley	33

LETTER OF TRANSMITTAL

UNITED STATES DEPARTMENT OF LABOR,
CHILDREN'S BUREAU,
Washington, April 2, 1925.

SIR: Submitted herewith is a report on Child Labor in Fruit and Hop Growing Districts of the Northern Pacific Coast, the seventh of a series of studies of rural child labor made by the Children's Bureau and the fourth of these dealing specifically with the employment of children on truck and small-fruit farms.

The investigation upon which the report was based was planned and carried out under the general supervision of Ellen Nathalie Matthews, director of the industrial division of the Children's Bureau. The field work was directed by Mary E. Skinner and the report written by Alice Channing.

The Children's Bureau is indebted to State and county officials, especially school superintendents, principals, and teachers, for their cooperation and assistance in the study.

Respectfully submitted.

GRACE ABBOTT, *Chief.*

Hon. JAMES J. DAVIS,
Secretary of Labor

CHILD LABOR IN FRUIT AND HOP GROWING DISTRICTS OF THE NORTHERN PACIFIC COAST

INTRODUCTION

This survey of the work of children on fruit crops and hops in Washington and Oregon is one of a series of studies of the work of rural children which have been made by the United States Children's Bureau in different sections of the country. Three studies of this series were made of children's work on truck and small-fruit farms of the Atlantic coast in Maryland, New Jersey, and the Norfolk section of Virginia.[1]

The labor of children can be utilized for harvesting berries, hops, and some kinds of orchard fruit, because the work is done by hand and, except for picking some of the orchard fruits, is unskilled. Most fruit and hop growers in Washington and Oregon, besides depending on members of their families to help during the harvest, engage either local or transient workers, both adults and minors. Owners of small apple orchards in Washington and owners of prune orchards in Oregon rely mainly on local workers, but the berry growers and hop ranchers of both States and the large orchard owners of Washington import great numbers of workers—men, women, and children—both from other rural districts and from the large coast cities.

This study was made in the berry district of the Puyallup Valley, Wash., and in orchard and hop-raising districts of the Willamette Valley, Oreg., and the Yakima Valley, Wash. These valleys were chosen as representative hop and fruit growing areas of the two States. The Puyallup Valley is the center of the red-raspberry industry in Washington, which produces more raspberries than any other State except Michigan and New York.[2] The section of the Willamette Valley which was chosen for survey produces some orchard and small fruits, chiefly prunes and loganberries, and is the most important hop-growing section of the northern Pacific coast. In this connection it may be noted that the acreage of hops in Oregon increased from 10,000 acres in 1918 to 12,000 in 1922.[3] The third area, in the Yakima Valley, was selected for study on account of the diversified character of the orchard crops. Pears, peaches, and prunes are raised there; as well as apples, the principal orchard crop of the State. Small acreages of hops also are grown in one section of the valley.

---

[1] Child Labor on Maryland Truck Farms, Child Labor and the Work of Mothers on Norfolk Truck Farms, and Work of Children on Truck and Small-Fruit Farms in Southern New Jersey. U. S. Children's Bureau Publications Nos. 123, 130, and 132. Washington, 1923 and 1924.

[2] Fourteenth Census of the United States, 1920, Vol. V, Agriculture, p. 855. Washington, 1922.

[3] Agriculture, U. S. Department of: Yearbook, 1918, p. 553; Yearbook, 1922, p. 750. Washington, 1919 and 1922.

The plan of the study is similar to that of other rural studies made by the bureau, several school districts in each area being selected for intensive survey.[1] After the names of the children enrolled in the schools had been obtained a house-to-house canvass was made, and interviews were held with local children under 16 years of age who had worked on fruit or hop crops at least 12 days during the previous 12 months and with migratory children under 16 who had worked at least 6 days.[2] Representative berry ranches, orchards, and hop yards in the school districts selected and in their vicinity were also visited, and owners and managers, as well as local and migratory families employed, were interviewed. No estimate as to the number of migratory children engaged in harvesting in the two areas could be obtained. Detailed information was obtained for 1,006 migratory children, who represented only a small proportion of those working in the selected areas, but all the children whose homes were in the selected school districts were interviewed. All the school children under 16 years living in the three districts selected for study who had worked on farms at least 12 days during the preceding year were included in the study. These children (797) represented from one-third to two-thirds of all the school children under 16 living in these districts. The study was made during the harvest seasons: In the Puyallup Valley in July, during the raspberry season; in the Yakima Valley in August and September, when peaches, pears, and hops were being picked; and in the Willamette Valley in September, during the prune and hop harvests.

---

[1] The districts selected in the Puyallup Valley were in Pierce County, Wash.; those in the Yakima Valley were in Yakima County, Wash.; and those in the Willamette Valley were in Marion and Polk Counties, Oreg.

[2] Children of families which maintained permanent homes in the selected school districts were classified as local. Children who had come into these districts for farm work were classified as migratory. These children belonged to two types of migratory families: So-called "floating" families, which followed fruit crops or other crops from district to district and had no permanent residence; (2) families which maintained a permanent residence outside the district where they worked, and returned to it after the fruit season was over.

CHILD LABOR IN ORCHARDS AND HOP YARDS OF THE YAKIMA VALLEY, WASH., AND THE WILLAMETTE VALLEY, OREG.

The work of children in hop and orchard raising sections of the two States is discussed in the same section of this report because, although different varieties of fruit are grown in the Willamette Valley, Oreg., and the Yakima Valley, Wash., the children of both areas do much the same type of work. In both valleys children work in hop yards and orchards, their work being usually confined to harvesting. About the same numbers of local child workers were interviewed in each area, 249 workers in the Yakima Valley and 268 in the Willamette Valley. A great many more children migrate for work in the Willamette Valley than for work in the Yakima Valley; 175 in the Yakima Valley and 472 in the Willamette Valley were interviewed. (Table 1.)

TABLE 1.—*Children under 16 working in orchards and hop fields, by sex and working status; Willamette and Yakima Valleys*

Selected area and working status of child	Both sexes		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	1,164	100.0	626	100.0	538	100.0
Local laborer	517	44.4	287	45.8	230	42.8
Migratory laborer	647	55.6	339	54.2	308	57.2
Willamette Valley	740	100.0	396	100.0	344	100.0
Local laborer	268	36.2	151	38.1	117	34.0
Migratory laborer	472	63.8	245	61.9	227	66.0
Yakima Valley	424	100.0	230	100.0	194	100.0
Local laborer	249	58.7	136	59.1	113	58.2
Migratory laborer	175	41.3	94	40.9	81	41.8

The Willamette and Yakima Valleys are very different in climate and development, and, as already noted, they produce different kinds of fruit. The section of the Willamette Valley chosen for survey is within 20 miles of Salem, the capital of the State, and not more than 60 miles from the coast. It was settled much earlier than the Yakima Valley, by some of the first Oregon pioneers. Because of its mild winters and ample rainfall it is well adapted to diversified agriculture. Large areas of the valley and of the hillsides are under cultivation, hops being raised in the bottom lands near the river and prunes on the uplands. There is also some general farming. The Yakima Valley, on the east side of the coast range, has a dry climate, and the valley was not developed until irrigation by the Government made farming possible. The extension of the "ditch" has been followed by a great influx of population in the last 20 years. At the present time apple, pear, and peach orchards, which follow the lines of the irrigating canals in the valleys and hollows between the arid brown hills, stretch for miles without a break.

Some of the fruit growers of the Yakima Valley have very large orchards, but many have small ones. One of the orchards visited included 305 acres of apples, pears, peaches, and prunes. On the other hand, of 73 fruit growers whose children worked, 52 had orchards less than 20 acres in area. In the Willamette Valley the largest prune orchard visited was 90 acres in extent, and orchards of 10 to 20 acres were common in this locality. The hop yards in the Yakima Valley were small, usually less than 25 acres in area, and they were owned by resident farmers. Hop ranches in the Willamette Valley were as a rule much larger than the hop yards in the Yakima, and most of them were owned by nonresidents. A few of the ranches visited included 300 to 500 acres, and ranches of 50 to 100 acres were common.

LOCAL WORKERS

Children living in the Willamette Valley who were over 10 years of age usually worked, helping to harvest prunes, berries, and hops in the localities where they lived; in the orchard districts of the Yakima Valley a smaller proportion of local children worked. Of 358 children under 16 years of age enrolled in 12 schools of the Willamette Valley and living in the locality at the time the study was made, two-thirds (67 per cent) reported that they had worked on fruit or hop crops at least 12 days during the year. Of 325 children enrolled in 4 Yakima Valley schools more than one-third (36 per cent) had done work of this kind. A small number of children, including brothers and sisters of those who were interviewed, had done some field work but had not worked with sufficient regularity to be included. In the hop-growing districts of the Yakima and Willamette Valleys, where hop yards were visited and migratory workers were interviewed but no house-to-house canvass was made, it appeared to be the practice for local children also to help at harvest time.

FAMILIES OF CHILD WORKERS

The majority of the local child workers in each valley were the children of fruit growers, most of whom owned their land. (Table 2.)

TABLE 2.—*Economic status of chief breadwinner in local families, by working status of children; Willamette and Yakima Valleys*

Economic status of chief breadwinner	Children under 16 working during year—							
	Total		On home farm only		On other farms only		On home farm and other farms	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	517	100.0	113	100.0	161	100.0	243	100.0
Farm owner	314	60.7	83	73.5	52	32.3	179	73.7
Farm tenant	40	7.7	4	3.5	6	3.7	30	12.3
Farm laborer	112	21.7	22	19.5	59	36.6	31	12.8
Nonagricultural	51	9.9	4	3.5	44	27.3	3	1.2
Willamette Valley: Total	268	100.0	59	100.0	64	100.0	145	100.0
Farm owner	167	62.3	42	71.2	18	28.1	107	73.8
Farm tenant	20	7.5	1	1.7	4	6.3	15	10.3
Farm laborer	56	20.9	14	23.7	20	31.3	22	15.2
Nonagricultural	25	9.3	2	3.4	22	34.4	1	0.7
Yakima Valley: Total	249	100.0	54	100.0	97	100.0	98	100.0
Farm owner	147	59.0	41	75.9	34	35.1	72	73.5
Farm tenant	20	8.0	3	5.6	2	2.1	15	15.3
Farm laborer	56	22.5	8	14.8	39	40.2	9	9.2
Nonagricultural	26	10.4	2	3.7	22	22.7	2	2.0

Only 8 per cent of the families represented in each valley were tenants. A few of the heads of families whose children worked on the local crops were not engaged in agriculture at all, and some of the farm owners and tenants had other occupations in addition to fruit or hop growing, so that in about two-fifths of all the families (about the same proportion in each area) the head of the family had a nonfarming occupation. A considerable proportion of the heads of families in each of the districts studied were employed as mechanics or operatives in factories or in the building trades; some of them worked in local industries such as sawmilling, fruit packing, or prune drying. A small number in each valley were proprietors or managers of stores, a few were unskilled laborers, and several were professional men.

In the Eastern States the majority of the children who work on truck or fruit farms have foreign-born fathers or are negroes. In the fruit and hop raising districts of the Yakima and Willamette Valleys, on the other hand, the majority are of native white parentage. In only 20 per cent of the families in the Willamette Valley, and in 36 per cent of those of the Yakima Valley, the fathers were foreign born; these represented at least 10 nationalities, among which the German, Russian German, and French Canadian predominated. No Indian or Negro families with children of school age were found living in the districts studied, and only one Japanese family. In neither valley were the foreign born recent immigrants. Except for the French Canadians and Russian Germans of the Yakima Valley, who constituted less than half the foreign-born families included in the study in that area, they were not concentrated in any one district or colony. With few exceptions they were English speaking and literate, and the majority subscribed to American newspapers or periodicals.

Many of the child workers of the Willamette Valley lived in well-built, comfortable houses of six or more rooms, and many of these houses had running water, electric light, and a telephone. Their homes were more representative of the area as a whole than those of the Yakima Valley workers, as well as distinctly better. In both districts the houses were superior to the average farm dwellings in many parts of the country. About one-third of the houses had running water, a somewhat larger proportion had plumbing, and about one-fourth had electric light. Some of the families lived near enough to a town to avail themselves of the town water supply and electric light; others had installed gasoline engines or other means of pumping water. In both valleys, as in other rural districts studied by the bureau, there were examples of room congestion. Ten per cent of the families living in the Willamette Valley districts and 16 per cent of those in the Yakima Valley districts had two or more persons per room. Although both the Willamette and the Yakima Valley district were distinctly rural in character, there was little isolation, as they were within a 25-mile radius of the cities of Salem and Yakima, respectively. Moreover, telephones were fairly common, at least in the Willamette Valley, and seven-tenths of the families represented in the study in each locality owned automobiles.

WORK OF CHILDREN

Although the majority of child workers in both localities were children of farm owners or tenants and usually worked on the home farm, 74 per cent of the farmers' children included in the Yakima Valley study and 77 per cent of those in the Willamette Valley study, as well as most of the children of farm laborers and practically all the children in the nonfarming families represented in the survey, worked also as hired laborers for local fruit or hop growers. (Table 2.) Nearly as large a proportion of the younger child workers (those under 12 years) as of older child workers had been employed at some time during the year as hired laborers. The distinction between hired local workers and migratory workers is not rigid in either valley, for some of the local child workers in the districts surveyed had made migrations also. Local workers in 12 per cent of the families included in the study in the Willamette Valley and in 6 per cent of those in the Yakima Valley had migrated at some time during the year for work in other places.

Age and Sex of Child Workers.

Among the local child workers included in the study in each valley the boys outnumbered the girls.

TABLE 3.—*Ages of child workers in local and migratory families, by district in which they were working at time of interview; Willamette and Yakima Valleys*

Age at time of interview	Children under 16					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Local: Total	517	100.0	268	100.0	249	100.0
Under 8 years	13	2.5	8	3.0	5	2.0
8 years, under 10	49	9.5	32	11.9	17	6.8
10 years, under 12	106	20.5	59	22.0	47	18.9
12 years, under 14	163	31.5	81	30.2	82	32.9
14 years, under 16	183	35.4	85	31.7	98	39.4
Not reported	3	.6	3	1.1		
Migratory: Total	647	100.0	472	100.0	175	100.0
Under 8 years	20	3.1	12	2.5	8	4.6
8 years, under 10	78	12.1	57	12.1	21	12.0
10 years, under 12	149	23.0	116	24.6	33	18.9
12 years, under 14	202	31.2	141	29.9	61	34.9
14 years, under 16	196	30.3	144	30.5	52	29.7
Not reported	2	.3	2	.4		

The majority of the children were under 14 years. (Table 3.) Unlike the children in small-fruit and truck-raising sections of the Atlantic coast, few were under 10—only 9 per cent of the workers in the Yakima Valley and only 15 per cent of those in the Willamette Valley as compared with 34 per cent and 20 per cent of the local child workers included in studies made by the Children's Bureau in Maryland and southern New Jersey, respectively.[1] More than

[1] Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 7; Child Labor on Maryland Truck Farms, pp. 8, 41.

two-fifths of the children of the Yakima Valley who were 14 and 15 years of age and more than three-fifths of the children of the Willamette Valley of these ages had worked four or more seasons, however, including the season of the survey.

Kinds of Work.

Harvesting is the principal work of most local children. During the hop and fruit seasons children help their parents on the home farm and also work by the day for other growers. In both valleys a large proportion of the children included in the study helped to harvest hops. In the Willamette Valley the majority of children but in the Yakima Valley only a small proportion picked berries. A majority of children in both valleys harvested orchard fruit. In the Yakima Valley they harvested apples, peaches, pears, cherries, and prunes, and in the Willamette Valley, chiefly prunes and cherries. Besides harvesting, a considerable number of children in each area hoed or weeded, and some of the older boys who lived on farms harrowed or cultivated. (Table 4.)

TABLE 4.—*Principal kinds of work done at various times during year by children in local families, by sex; Willamette and Yakima Valleys*

Kind of work	Children under 16 doing each specified kind of work											
	Willamette Valley						Yakima Valley					
	Total		Boys		Girls		Total		Boys		Girls	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total [1]	268	100.0	151	100.0	117	100.0	249	100.0	136	100.0	113	100.0
General farm work:												
Preparing ground [2]	53	19.8	51	33.8	2	1.7	20	8.0	20	14.7	------	------
Hoeing	76	28.4	61	40.4	15	12.8	59	23.7	40	29.4	19	16.8
Weeding and thinning	37	13.8	27	17.9	10	8.5	41	16.5	24	17.6	17	15.0
Harvesting hops or fruits:												
Picking—												
Hops	123	45.9	66	43.7	57	48.7	103	41.4	46	33.8	57	50.4
Small fruits [3]	180	67.2	98	64.9	82	70.1	44	17.7	24	17.6	20	17.7
Strawberries	130	48.5	72	47.7	58	49.6	39	15.7	22	16.2	17	15.0
Loganberries	146	54.5	80	53.0	66	56.4	------	------	------	------	------	------
Orchard fruits [4]	86	32.1	43	28.5	43	36.8	153	61.4	89	65.4	64	56.6
Cherries	66	24.6	37	24.5	29	24.8	60	24.1	41	30.1	19	16.8
Apples	6	2.2	4	2.6	2	1.7	81	32.5	50	36.8	31	27.4
Pears and peaches	10	3.7	3	2.0	7	6.0	70	28.1	43	31.6	27	23.9
Prunes	------	------	------	------	------	------	31	12.4	17	12.5	14	12.4
Picking up prunes	192	71.6	102	67.5	90	76.9	------	------	------	------	------	------
Harvesting vegetables	29	10.8	17	11.3	12	10.3	35	14.1	24	17.6	11	9.7
Harvesting general farm crops	24	9.0	23	15.2	1	.9	55	22.1	47	34.6	8	7.1
Other kinds of work:												
Thinning orchard fruit	------	------	------	------	------	------	89	35.7	53	39.0	36	31.9
Packing, loading, driving	29	10.8	25	16.6	4	3.4	23	9.2	21	15.4	2	1.8
Training hops	20	7.5	16	10.6	4	3.4	17	6.8	6	4.4	11	9.7

[1] The reason that the items do not add to the totals is that most of the children did several kinds of work during the year.
[2] Includes plowing, harrowing, disking, dragging, and cultivating.
[3] Small fruits include strawberries, raspberries, loganberries, blackberries, and currants. Children in this group may have picked one or more varieties.
[4] Orchard fruits include apples, pears, prunes, peaches, and cherries. Children in this group may have picked one or more varieties.

The work of many children who did harvesting only is like that of a certain girl of 13 and her brother of 10 years, children of a farm owner of the Willamette Valley. Both children had worked as hired laborers picking strawberries and cherries, the girl picking hops also, and both had worked in their father's orchard picking prunes. The work done by some of the older boys may be illustrated by that of a boy of 14 years of the same locality who reported that he had harrowed, disked, dragged, and cultivated the home orchard, had hoed and weeded throughout the growing season, and in the harvest season had also baled and shocked hay and picked prunes.

Picking up prunes is the simplest form of orchard work that children do. Of child workers included in the study in the Willamette Valley, 192, or more than seven-tenths, did this work, but none in the Yakima Valley did it. Among those who picked up prunes were many younger children, 16 per cent being under 10 years and 41 per cent under 12, and nearly as many girls as boys. (Table 5.)

TABLE 5.—*Principal crops harvested at various times during year by children in local families, by age; Willamette and Yakima Valleys*

Crop harvested	Children under 16 harvesting each specified crop								
	Total		Under 10 years[1]	10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent		Number	Per cent[1]	Number	Per cent	Number	Per cent
Willamette Valley: Total[2]	[3] 268	100.0	40	59	100.0	81	100.0	85	100.0
Picking—									
Hops	[4] 123	45.9	12	25	42.4	43	53.1	41	48.2
Small fruits[5]	[6] 180	67.2	24	47	79.7	52	64.2	56	65.9
Loganberries	[6] 146	54.5	14	40	67.8	41	50.6	50	58.8
Strawberries	130	48.5	18	37	62.7	36	44.4	39	45.9
Orchard fruits[7]	86	32.1	10	20	33.9	29	35.8	27	31.8
Cherries	66	24.6	8	16	27.1	22	27.2	20	23.5
Picking up prunes	[6] 192	71.6	30	48	81.4	55	67.9	58	68.2
Yakima Valley: Total[2]	249	100.0	22	47	100.0	82	100.0	98	100.0
Picking—									
Hops	103	41.4	12	28	-------	33	40.2	30	30.6
Small fruits[5]	44	17.7	5	11	-------	17	20.7	11	11.2
Strawberries	39	15.7	5	10	-------	15	18.3	9	9.2
Orchard fruits[7]	153	61.4	8	18	-------	52	63.4	75	76.5
Apples	81	32.5	2	9	-------	25	30.5	45	45.9
Pears and peaches	70	28.1	3	4	-------	22	26.8	41	41.8
Cherries	60	24.1	7	7	-------	21	25.6	25	25.5
Prunes	31	12.4	1	4	-------	10	12.2	16	16.3

[1] Not shown when base is less than 50.
[2] The reason that the items do not add to the totals is that many of the children harvested more than one crop.
[3] Includes three children for whom age was not reported.
[4] Includes two children for whom age was not reported.
[5] Small fruits include strawberries, raspberries, loganberries, blackberries, and currants. Children in this group may have picked one or more varieties.
[6] Includes one child for whom age was not reported.
[7] Orchard fruits include apples, pears, prunes, peaches, and cherries. Children in this group may have picked one or more varieties.

Many of the children were working for their parents on the home farm, but more than one-third of those who were picking up prunes on the day before the interview were hired workers. In this region, instead of being picked and shipped green, as in the Yakima Valley, prunes are allowed to ripen on the trees and are picked up after they have fallen to the ground. They are then dried in local driers before

shipment. Some of the older boys were employed to go through the orchards and shake the trees gently in order to loosen the fruit, but most of the children just picked up the prunes from the ground and put them into pails. The heavy work of dumping the pails of prunes into boxes and loading them on trucks is usually done by adults. Picking, however, causes considerable strain on the backs and knees of the pickers, as they must crawl or squat on the ground, and unless the harvest is completed before the autumn rains set in the ground may be damp and muddy.

Picking fruit from the trees is more difficult than picking it up from the ground. Three-fifths of the children of the Yakima Valley and one-third of those of the Willamette Valley had picked some kind of fruit from the trees. Few children in either valley, however, had picked apples, pears, or peaches. Although apples are the principal fruit crop of the Yakima Valley only about one-third of the children studied in this valley had picked apples. Picking apples, pears, and peaches, particularly in orchards where fruit is carefully graded for shipping, is usually regarded as too difficult for children, at least for those under 14 years. (Table 5.) Children are not strong enough to manage the ladders and are not sufficiently careful in handling the fruit, for care must be taken not to drop it nor to bruise the skin or injure it in any way. Apple picking is particularly hard for children because apple pickers in this locality carry the containers in which they put the apples. The container, a burlap sack, is attached by straps which pass over the back of the neck and around the waist of the worker. One mother said that neither she nor her 15-year-old boy could pick apples because the sack was so heavy that the pressure of the strap hurt the back of the neck. In picking pears or peaches the worker is usually not hampered by a sack, but if the trees are not to be stripped at one picking, he must use judgment in selecting the fruit to be picked. A pear picker is often provided with a wire ring with which to measure the pears. If the pears are too large to slip through the ring they are picked; otherwise they are left on the tree for a later picking. Peach pickers must select fruit of a certain color and firmness. On account of the fuzz from the peaches, which irritates the hands and arms of the workers and because of the excessive heat at the time of the harvest, in August, the work is disagreeable as well as difficult.

One hundred and twenty-six children (one-fourth of those living in each of the valleys) picked cherries, one of the minor fruit crops of each area. Many of these children were under 12 years of age. Besides picking cherries some of the Yakima children picked prunes from the trees. Cherries and prunes are easier than other orchard fruits for children to pick because the fruit is not so heavy and because no judgment is necessary in selecting the fruit as the trees are stripped at one picking. One grower employed children to pick prunes when most of his adult workers were busy picking peaches.

Many growers will not employ children in any kind of orchard. When picking fruit from the trees children break the branches, and, as they are not strong enough to move the stepladders, it is necessary to employ adults to do this work and to clear the tops and upper branches of the trees. That some growers, however, consider child workers valuable is indicated by the fact that 67 of the 93 children who were picking some kind of orchard fruit on the day before the

interview were working as hired laborers, and many of these were picking pears and peaches.

Two-thirds of the children living in the Willamette Valley and less than one-fifth of those living in the Yakima Valley had picked berries. More than half the children of the Willamette Valley had picked loganberries, and nearly as many had picked strawberries. Some Yakima Valley children had picked strawberries, and a few had picked raspberries or other small fruits. Many of the younger children picked berries for canneries, which is much easier work than picking them for long-distance shipment. In the Multnomah section of the Willamette Valley, where quantities of berries are picked for canneries, an advertisement calling for 5,000 pickers stated that "boys and girls over 7 years old can do as well picking berries as men and women." In picking berries for canneries the worker can pick all the ripe berries on the vines, soft as well as firm berries, but in picking for shipment he must discard all overripe or crushed berries and must place the firm ones in the cup or basket instead of dropping them into it. In selecting loganberries for the fresh-fruit market the worker picks only those that are firm and of a light-red color. On some ranches where strawberries grow very large, pickers are required to "face the berries," that is, to place the berries in the basket in such a way as to attract prospective buyers, and this the younger children can not be trusted to do.

More than two-fifths of the local workers in each valley had picked hops. Except for a few children in the Yakima Valley most of those who picked hops worked as hired laborers, often on the same ranches where migratory workers were employed. Hop picking is easy work and, like berry picking, can be done by children under 10 or 12 years. (For description of picking see page 21.)

Besides harvesting fruits and hops a small number of children (slightly more than one-tenth in each area) had harvested vegetables, and a few in the Yakima Valley had pulled and topped sugar beets. Others (about one-fifth of those living in the Yakima Valley and a smaller proportion of those in the Willamette Valley) had helped to harvest general farm crops, mowing or raking hay and shocking grain.

The only kind of orchard work except harvesting in which considerable numbers of children were employed was the removing of surplus green fruit from the branches, which is known as thinning. Practically all the children who did this work lived in the Yakima Valley and were at least 12 years of age. The thinning of apples, pears, and peaches, which is usually done before the beginning of July, allows the fruit left on the tree to grow larger and ripen uniformly. Usually children thin only apples, although the growers of this vicinity also make a practice of thinning pears and peaches. When thinning apples the worker, who usually stands on a step-ladder, either uses pliers or snaps off the surplus apples with thumb and forefinger, leaving one apple on a spur and about 7 inches between spurs. Children sometimes stand on the ground and thin the fruit on the lower branches while adults thin it on the higher branches. Other orchard work, such as pruning, spraying, whitewashing trunks, propping up limbs, or cutting sprouts, either requires skill or is considered too heavy for children, and only 6 per cent of the children living in either area reported doing this work.

The child workers who did general work such as hoeing or weeding or who helped in the tillage of orchards or berry fields were usually boys who lived on farms and worked for their parents. Nearly one-fourth of the children living in the Yakima Valley and a slightly larger proportion of those in the Willamette Valley, including some girls, had done hoeing, most of it in the berry fields or hop yards to remove weeds left about the roots of the bushes or vines after the cultivator had passed through. A few children in each valley—twice as many boys as girls—weeded, thinned, and suckered, including suckering hops. Few boys, practically all of whom were 14 or 15 years of age, had harrowed or cultivated, and even fewer had done plowing. The increasing use of tractors for plowing or cultivating in the two areas may explain the comparatively small number of children engaged in such work.

Many children had done other kinds of work, but only a small number reported any one kind. A few in each area had planted or transplanted, a few Yakima children had helped with irrigating, usually cleaning out ditches, some in each area had driven or loaded a team, and many of these had worked in the orchards collecting the filled fruit boxes. Twenty-five children, most of whom lived in the Willamette Valley and were at least 14 years of age, had trained and pruned berry bushes, the work consisting of cutting out old canes after they had fruited and weaving young canes on to the trellises or training new shoots. Thirty-seven children (about 7 per cent in each valley) had done some work connected with training hop vines—stripping surplus leaves from the stalks, tying strings no the overhead wire trellises, or twining vines about the strings. A few children who had worked in hop yards in the Willamette Valley had done work which subjected them to considerable physical strain. Nine children, for example, had stood on top of a 5-foot platform on a sledge which was being driven through the rows to work on the overhead wire trellis. Several others had "bucked sacks" during the picking season, including one boy of 12 years who was employed nine hours a day hoisting 50-pound sacks onto his back and carrying them to the end of the row.

Hours.

In the Yakima Valley the 10-hour day, from 7 a. m. to 6 p. m., is customary in both hop yards and orchards. In the Willamette Valley hours in the hop yards are long, but they are much shorter and more irregular in the prune orchards on account of the limited capacity of prune driers, into which the prunes are put as soon as picked. Almost all the Willamette Valley children were working in prune orchards at the time of the study. Hence their working hours were short compared with those of the Yakima Valley children and are more nearly comparable to the hours worked by children picking berries and vegetables on the truck farms of the Atlantic Coast States. For example, 10 per cent of the Willamette Valley child workers who reported their hours of work on a sample day of the harvest season (that is, on the last day they worked before the agent's visit) had worked at least 10 hours, as compared with 9 to 18 per cent of the children working on home or neighborhood farms included in the Children's Bureau studies of truck-farm workers in New Jersey,

Maryland, and Virginia.[2] On the other hand, 63 per cent of the Yakima Valley children reported a 10-hour day. (Table 6.) Children employed as hired workers in both districts worked longer hours than children who were working for their parents. In the Willamette Valley 45 per cent of the children who worked as hired laborers, compared with 33 per cent of the children who worked for their parents, had worked more than 8 hours on the sample day; in the Yakima Valley most of the children who worked as hired laborers but only about one-third of those working for their parents had worked at least 10 hours. There was little difference in either valley between the working hours of boys and girls, but older children worked longer hours than younger children, particularly those younger children who were working for their parents. Reliable reports of working hours could be procured for only 39 children under 10 years of age, but 12 of these, some in each valley, had worked more than 8 hours on the sample day. No child who habitually worked less than 4 hours a day was included in the study.

TABLE 6.—*Hours of work of children in local families on a sample day in the harvest season, by age; Willamette and Yakima Valleys*

Hours of field work on sample day	Children under 16					
	Total		Under 10 years	10 years, under 12	12 years, under 14	14 years, under 16
	Number	Per cent distribution				
Willamette Valley: Total	[1] 268		40	59	81	85
Total reporting	[2] 198	100.0	25	41	61	69
Less than 6 hours	61	30.8	10	18	12	21
6 hours, less than 8	[3] 37	18.7	4	4	18	10
8 hours even	23	11.6	7	4	5	7
More than 8 hours, less than 9	20	10.1	2	4	6	8
9 hours, less than 10	[3] 37	18.7	1	9	14	12
10 hours, less than 11	20	10.1	1	2	6	11
Not reporting	[3] 70		15	18	20	16
Yakima Valley: Total	249		22	47	82	98
Total reporting	194	100.0	14	36	66	78
Less than 6 hours	11	5.7	3	3	4	1
6 hours, less than 8	14	7.2	2	1	4	7
8 hours even	17	8.8	1	5	7	4
More than 8 hours, less than 10	29	14.9	3	5	11	10
10 hours, less than 11	123	63.4	5	22	40	56
Not reporting	55		8	11	16	20

[1] Includes 3 children for whom age was not reported. [3] Includes 1 child for whom age was not reported.
[2] Includes 2 children for whom age was not reported.

Duration of Work.

While harvesting a particular crop the children usually worked regularly for three or four weeks until the harvest was completed. The regularity of their work may be illustrated by the number of hours that 385 children (about equal numbers in each area) had worked the week before they were interviewed. More than two-fifths in the Willamette Valley and nearly two-thirds in the Yakima Valley had worked 48 hours or more. In the Yakima Valley two-fifths had worked 56 or more hours but only about one-fifth in the

[2] Child Labor on Maryland Truck Farms, pp. 14, 44; Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 14; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 15.

Willamette Valley. Except older boys who had worked in orchards or on general farm crops neither local nor migratory children worked continuously throughout the summer.

All children were asked the total number of days they had worked during the preceding 12 months. Among the 74 children who could not remember the number of days they had worked were many who had done general work at home and had probably worked the longest periods; children who did harvesting only could usually give definite information. (Table 7.) Every local child included in the study had worked at least 12 days but not necessarily 12 consecutive days. The majority of those reporting in each valley, like the majority of the local child workers on eastern truck farms,[3] had worked 30 or more days, and more than one-fourth (approximately the same proportion in each area) had worked 60 days or more. Children who worked on the home farm as a rule worked longer periods than children who worked only as hired laborers, and older children worked longer than younger. Many more girls than boys in each area had worked for the short periods of 12 to 30 days. Practically no girls had worked 90 days or more, but 44 boys (about the same number in each valley) had done so.

TABLE 7.—*Duration of field work of children in local families, by district; Willamette and Yakima Valleys*

Number of days of field work during year	Children under 16					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	517		268		249	
Total reporting	443	100.0	211	100.0	232	100.0
12 days, less than 30	189	42.7	82	38.9	107	46.1
30 days, less than 60	133	30.0	73	34.6	60	25.9
60 days, less than 90	71	16.0	30	14.2	41	17.7
90 days, less than 120	36	8.1	15	7.1	21	9.1
120 days and over	14	3.2	11	5.2	3	1.3
Not reporting	74		57		17	

Earnings.

The harvesting of fruit and hops is usually done on a piece-work basis with the exception of the picking of pears and peaches, which requires special care. In the Willamette Valley hop pickers were paid by quantity, and in the Yakima Valley by weight. In the Willamette Valley the rate was 60 to 70 cents a box or sack, which was supposed to contain 50 pounds but was not weighed; in the Yakima Valley the rate was $1.50 per 100 pounds. On many Willamette Valley ranches pickers received an additional 10 cents for each box if they remained until the end of the season. After filling a box the picker received a check, which was cashed by some employers on demand but by others at the end of the season or at the time the picker left the ranch. For picking up prunes in the Willamette Valley the workers received 8 or 10 cents per bushel box. The

[3] Child Labor on Maryland Truck Farms, p. 46; Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 13; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 16.

10-cent rate was usually paid only to pickers who shook the trees as well as picked up the fruit. For picking pears or peaches in the Yakima Valley the usual rates paid children for a 10-hour day were $2.50 to $3, and the usual rate paid men was $3.50. Piece rates for berries in the Willamette Valley varied somewhat, but a rate of 2 cents a quart for both strawberries and loganberries was usual. Although in some districts apple pickers are paid by the hour, in the Yakima Valley they were paid by the piece, the rate being 5 cents for a box which weighed 40 to 50 pounds when full.

Two hundred and four local workers in the Willamette Valley and 185 in the Yakima Valley received pay for their work. Many of these children had been working for their parents. An attempt was made to get information as to the earnings of the children the last week they had worked, but the majority of children could not give adequate information on this point. More of the older children than of the younger reported the amount earned on the last day they had worked. Only a small proportion of the children who picked up prunes reported their earnings, for many of the children who did this work put the fruit into the same pail as that used by their mothers and did not keep their earnings separate. Earnings of children who were 12 years of age or older were usually larger than those of younger children, but earnings depended chiefly on the kind of work the children did, as is shown in Table 8, which compares the earnings of children in the two valleys. Children who picked hops usually earned between $1 and $3 a day. Partly because of the irregularity of hours in prune orchards children who picked up prunes earned much less than children who picked orchard fruit. Pear or peach pickers often earned $3 or $4 a day.

TABLE 8.—*Earnings of children in local families on a sample day, by kind of work; Willamette and Yakima Valleys*

Earnings on sample day	Children under 16 doing specified work on sample day						
	Total		Picking up prunes or nuts	Picking hops	Picking orchard fruits	Other kinds of work	Not reported
	Number	Per cent distribution					
Willamette Valley: Total	268		163	68	3	25	9
Total reporting	98	100.0	45	42		11	
Less than $1	13	13.3	9	4			
$1, less than $1.50	21	21.4	6	13		2	
$1.50, less than $2	23	23.5	12	11			
$2, less than $3	26	26.5	16	9		1	
$3, less than $4	12	12.2	2	4		6	
$4 and over	3	3.1		1		2	
No earnings	64		50		2	6	6
Not reporting	106		68	26	1	8	3
Yakima Valley: Total	249		1	75	93	74	6
Total reporting	123	100.0		46	53	24	
Less than $1	6	4.9		5		1	
$1, less than $1.50	5	4.1		3	2		
$1.50, less than $2	10	8.1		10			
$2, less than $3	31	25.2		9	15	7	
$3, less than $4	64	52.0		19	31	14	
$4 and over	7	5.7			5	2	
No earnings	64			2	16	41	5
Not reporting	62		1	27	24	9	1

SCHOOLING OF CHILD WORKERS

The work of local children interferes little with their school attendance because the terms of most schools in this region are adjusted to the harvest seasons and do not open until the harvest is over. The year of the survey the schools in the hop districts of the Willamette Valley, by action of the local school boards, opened the last week in September, and those in some of the prune districts not until October 9. They made up the time in the spring, as the Oregon law requires an eight-month school session.[4] In the hop districts of the Yakima Valley the public school opened about a week before the hop-picking season was over, and a parochial school which many of the hop pickers attended did not open until the end of the season. In most apple districts of the area, especially in those where the orchards were large and the growers hired adult workers, the schools were in session during the harvest season, but in two districts where there were many small apple orchards, one of which was selected for survey, an "apple vacation" was given, the schools opening the last of August and closing for two or three weeks in October. There was some difference of opinion among the families interviewed as to the desirability of the "vacation." Some families thought that the vacation for harvest work should be even longer than it was. On the other hand, families whose children were under 10 or 12 years, and therefore too young to pick apples, criticized the interruption of the school year, saying that it benefited only children in the upper grades and in the high school. Some mothers opposed the vacation because they were themselves obliged to work in the orchards and they wished to have their children in school, where they would be cared for.

Owing largely to these readjustments in the school term the children working on the farms of both the Willamette and the Yakima Valley lost comparatively little time from school on account of their work. In the Willamette Valley districts, about 11 per cent of the 144 child workers who gave information on the subject had stayed out of school for farm work; in the Yakima Valley districts, where school terms were longer and where three of the four schools selected for study were in session during the apple season, about 20 per cent of 108 child workers had stayed out of school for farm work. But only 10 children in both districts had missed as much as 20 school days on this account, whereas in the truck-farming districts of New Jersey, Maryland, and Virginia from 35 to 74 per cent of the children working on home farms or farms in the vicinity of their homes had stayed out of school to work, and from 11 per cent to 30 per cent had lost at least 20 school days on account of their farm work.[5]

Child workers living in these areas went to school much more regularly than child workers in most of the other rural districts where the Children's Bureau has made similar surveys, and school officials said that they had little trouble with truancy of local children. Except for one boy, all the children between 7 and 15 years in the two areas and most of those 15 years of age were enrolled in school the year of the survey. More than four-fifths of the children for

[4] Oregon Laws 1920, sec. 5165. (School districts are not entitled to their proportion of the county school fund unless school has been in session for at least eight months of the year.)

[5] Child Labor on Maryland Truck Farms, pp. 18, 47; Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 19; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 19.

whom school records were obtained (88 per cent in the Willamette Valley and 83 per cent in the Yakima Valley) had been in school at least 80 per cent of the term; nearly seven-tenths (74 per cent in the Willamette Valley and 65 per cent in the Yakima Valley) had attended school at least 90 per cent of the term. Attendance records of many children were good in spite of the fact that it was sometimes difficult for them to travel to school. Of 121 children, some in each area, who lived 2 or more miles from school, 85 were obliged either to walk or to furnish their own transportation. Some rode bicycles, and others came in the family automobiles.

In neither area was the proportion of child workers below the normal grades for their ages so large as in most rural districts studied by the bureau, nor was it much larger than the average even for city school children. Among child workers of the Willamette Valley between 8 and 16 years of age, 21 per cent were retarded in school.[6] In the Yakima Valley districts, where more children stayed out of school to do farm work and where there were Russian-German and French-Canadian colonies, the percentage of retardation was 30, but for children of native parentage it was about the same as for the Willamette Valley children. The percentage of retardation even in the Yakima Valley districts was but little higher than the average among city school children of the same ages (26.6 per cent)[7] and was smaller than among children working on the home farm or on farms near their homes in truck-farming districts of Eastern States—for example, the rural districts in New Jersey, Maryland, and Virginia surveyed by the Children's Bureau. In the Maryland and the New Jersey districts from 38 to 57 per cent of the local white child workers, and in the Virginia and the Maryland districts from 72 to 85 per cent of the local colored child workers on the farms were below normal grades for their ages.[8] In connection with the relative amounts of school time lost on account of farm work by children in the two sections (see p. 15) these figures are very significant in indicating the extent to which school progress is interfered with by farm work, unless some special adaptation of the school term to harvest seasons can be made. To provide harvest vacations is more difficult, of course, where there is a succession of crops, as in some of the truck-growing areas.

MIGRATORY WORKERS

THE LABOR SUPPLY

Both the Yakima and Willamette Valleys have a large transient population from which the growers recruit seasonal labor. The shifting of the population is reflected in the school enrollment. About one-third of the children enrolled during the school year 1922–23 in the Willamette Valley schools selected for study and nearly one-fourth

[6] The age basis on which the retardation of these children was calculated is that adopted by the U. S. Bureau of Education. Children of 6 or 7 years are expected to enter the first grade, children of 7 or 8 the second grade, etc. Normally a child is expected to complete one grade each year; children, therefore, were considered retarded if they had not entered the second grade by the time they reached the age of 8 years, the third grade at 9 years, the fourth grade at 10 years, etc.

[7] The average percentage of retardation for city children was computed from age-grade statistics from Statistical Survey of Education, 1921–22 (U. S. Bureau of Education Bulletin, 1924, No. 38, Washington, 1925).

[8] Child Labor on Maryland Truck Farms, pp. 19, 49; Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 20; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 20.

of the children enrolled in the selected Yakima Valley schools had moved out of the districts by the time the study was begun, in the summer of 1923. Some families come into the districts to "look for a place to settle," and, "hoping to find a better place," move on; others are traveling "to see the country" and wish "to earn money along the way." By the end of March some families come into the Willamette Valley to train hops, but the great increase of population is in September, during the hop harvest. The low shacks or bunk houses, deserted at other seasons, are swarming with people, and tent colonies spring up overnight. In the Yakima Valley the change in population is more gradual. There the harvest season begins in August with the pear picking and ends in November with the apple picking.

In the Willamette Valley bureau agents made a canvass of 15 hop yards which employed approximately 3,300 pickers at the time of the visit, according to owners' estimates, and 12 hop yards in the Yakima Valley which employed much smaller numbers of workers. All peach, pear, and prune orchards in the selected school districts of both areas were also visited. All children in both areas who worked were included in the study except those employed in the largest three hop yards of the districts selected in the Willamette Valley. Proportionately few migratory child workers were found in the Yakima Valley because orchard growers prefer adult workers and because the hop district is small. Of the 175 child workers interviewed in the Yakima Valley about three-fifths were picking hops, and of the 472 interviewed in the Willamette Valley more than three-fourths were picking hops. The remainder in each valley were working in orchards.

The families of transient laborers in both areas surveyed are of two distinct types—those who work on only one crop a season and those who follow the fruit harvest from one district to another. Families that work on only one crop are more likely to come from another part of the same county or from adjacent counties than families that make a practice of harvesting fruit, many of whom come from a distance. The homes of more than four-fifths of the 265 families included in the study in the Willamette Valley, and the homes of two-thirds of the 83 families in the Yakima Valley were in the State in which they were working at the time they were interviewed; the homes of a considerable proportion of the families in each valley were in other parts of the same county. A small proportion in each area had migrated from Washington to Oregon or vice versa, or from Idaho, Montana, or other States, or from Canada. Some of the families had come from Portland, Salem, or Yakima, but the majority of those included in the study in each area were from small towns or rural districts in Washington or Oregon. Children from 108 places in 28 counties in Washington and Oregon had migrated to the Yakima and Willamette Valleys. (Table 9.)

TABLE 9.—*Localities from which migratory families came, by district in which they were working at time of interview; Willamette and Yakima Valleys*

Locality from which family came	Migratory families with children under 16 working in orchards or hop fields					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	348	100.0	265	100.0	83	100.0
Same county	127	36.5	83	31.3	44	53.0
Cities over 10,000	53	15.2	38	14.3	15	18.1
Smaller cities and rural districts	74	21.3	45	17.0	29	34.9
Other counties in State	152	43.7	140	52.8	12	14.5
Washington to Oregon	18	5.2	18	6.8	----	----
Oregon to Washington	6	1.7	----	----	6	7.2
Other localities	42	12.1	21	7.9	21	25.3
Not reported	3	0.9	3	1.1	----	----

A considerable number of families made a practice of "following the fruit." Fifty-seven of 265 families included in the study in the Willamette Valley, and 28 of 83 in the Yakima Valley had made three or more migrations within the 12 months preceding the interview. The majority of these had made migrations in previous years also. (Table 10.) Many families working in each valley, however, had migrated only once, or at the most, twice during the year; about half in each area were having their first experience in hop yards or orchards. Comparatively few families had left their homes for the purpose of harvesting orchard fruit, but many families had migrated for the purpose of picking hops. Families who had made two or three migrations had generally picked hops and in addition either berries or orchard fruit.

TABLE 10.—*Number of migrations made by families during year, by district in which they were working at time of interview; Willamette and Yakima Valleys*

Number of migrations during year	Migratory families with children under 16 working in orchards or hop fields					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	[1] 348	100.0	[1] 265	100.0	83	100.0
One migration	141	40.5	105	39.6	36	43.4
Two migrations	126	36.2	102	38.5	24	28.9
Three migrations and more	80	23.0	57	21.5	23	27.7

[1] Includes one family for which number of migrations was not reported.

The families who were working in the Willamette or the Yakima Valley at the time of the interview had been working during the year in many localities. Some had worked in southern California and others in western Washington. Some had worked in several

States. Many families began to work in June, picking strawberries either in the Hood River Valley or in eastern Multnomah County, Oreg.; in July they picked loganberries or raspberries in Multnomah or Marion County, Oreg., or in other localities; in August, unless they harvested peaches or pears in Washington or flax in Marion County, they returned home or camped out until September when the hop harvest began. At the end of the hop harvest some of the workers harvested prunes or apples.

An example may make the character of the migrations clearer. The mother and child in one family arrived home in Clackamas County, Oreg., at the end of September, 1922, after the hop harvest in Marion County, the father arriving home later after the apple season. In May, 1923, the whole family started out in their automobile with their camping outfit. They stopped first in the Hood River Valley to pick strawberries and cherries and in July arrived in Multnomah County to pick loganberries; when interviewed in August they had traveled over 200 miles across the mountains into eastern Washington and were picking pears and peaches in the Yakima Valley.

Unlike the migratory workers of the Eastern States, most of whom are of Italian, Polish, or other foreign-born parentage, the migratory workers in both the Willamette and the Yakima Valley are chiefly of native white parentage—the families who make a practice of "following the fruit" as well as those who make but one migration. No Japanese were found working in either of the districts surveyed, and only 3 per cent of the families included in the study in the two areas were Indian or Negro. In one-fourth of the families interviewed (a slightly larger proportion in the Yakima Valley than in the Willamette) the father was of foreign birth. In the Yakima Valley these families were chiefly Russian Germans; in the Willamette Valley there were Russian Germans and many other nationalities also. The majority of fathers in each area had been in the United States 15 years or more, and most of them were literate and English speaking. Some of the parents in Russian-German families in each valley, however, were illiterate; a few of the mothers were unable to speak English.

Few migratory families depend on harvesting fruit or hops or on other farm labor for their only source of income. Many of the families interviewed said that they wished to supplement their regular incomes, and some added that hop picking was an opportunity for "all the children to work too." A considerable proportion of fathers do not migrate with their families but remain at home to work, but in families which make a practice of migrating the men are likely to accompany the women and children. They usually do general work in the hop yards or hop kilns or in fruit-packing houses, but sometimes they pick. In practically every family interviewed in each valley the father had been employed during the year in an occupation other than harvesting. In about one-fourth of the families which had migrated to each valley the fathers owned or rented farms at home; but the majority were engaged in nonagricultural work, and these included factory workers, skilled mechanics in building trades, and laborers in lumber camps.

RECRUITING WORKERS

Fruit and hop growers obtain seasonal workers in several ways, perhaps the most important of which is newspaper advertising. Some growers advertise only in papers which circulate in rural districts; others advertise in city papers. The advertisement usually states in full the conditions of work and the attractions offered. The following example is quoted from a Portland paper:

> Hop pickers wanted. 100 new camp houses, 54 acres finest hops in valley, 60 cts. a box paid; homes furnished everybody, stoves, tables, wood, straw, fine water; a store on the grounds, Salem prices; ranch on river, bathing beach; come prepared to buy ticket, special reduced rates.

Some of the large hop companies have offices in Portland or Salem, and they register prospective pickers who have been attracted through the newspapers or obtained through employment agencies; other companies and individual growers employ agents, often former pickers, to engage new workers, and they pay the agent 50 cents for each new worker engaged. Some owners put up signs in local stores or on the highways to attract passing automobilists, and others canvass the automobile tourist camps for workers.

According to many of the owners who were interviewed in both areas there was no actual labor shortage, but it was difficult to get reliable workers. There are no formal contracts or agreements between employers and pickers. Most owners of hop yards in the Willamette Valley offer a bonus as an inducement to pickers to remain until the end of the season. In the Willamette Valley hop ranchers furnish each family with either a tent or one or two rooms in a bunk house, but in the Yakima Valley families are expected to provide their own tents. In both valleys the ranch owners provide water and fuel; the families bring their camp outfits, consisting of bedding, dishes, and often some kind of stove. The former practice of furnishing transportation, either from the workers' homes to the ranch, or at least from the railroad station to the ranch, is decreasing with the growing prevalence of the "automobile tramp." Two-thirds of the families included in the study in the two areas provided their own transportation, more than half of them coming in their own cars. Some owners complained about the instability of workers who owned automobiles, and several stated that it was necessary to have three crews of pickers, "one coming, one going, and one working."

WORK OF CHILDREN

Age and Sex of Child Workers.

Harvesting is the only work of most migratory child workers. The work on the various fruit and hop crops is concentrated in periods of several weeks at a time, a working day of 10 hours being customary in the Yakima Valley and of 9 or 10 hours in the hop yards of the Willamette Valley. Most of the 472 migratory child workers interviewed in the Willamette Valley and of the 175 migratory workers in the Yakima Valley had picked hops; the majority in each of the sections had also harvested some kind of fruit. The majority in the Willamette Valley and some in the Yakima Valley had picked berries. Girls and boys did much the same kind of work. Children under 12 years harvested hops, small fruits, and prunes but seldom picked

other orchard fruits. Many of the migratory workers had worked during the year on fruit crops in other parts of the same State or in the adjacent State as well as in the valley in which they happened to be at work at the time the survey was made.

Among the migratory workers in each valley was a slightly greater number of boys than of girls. (Table 1.) About 70 per cent in each valley were under 14 years of age, and about 15 per cent in each valley were under 10. More boys than girls were under 10. Nearly 60 per cent of the children in the Willamette Valley and a smaller proportion of those in the Yakima Valley had worked in the fields before the season the survey was made. Of 144 children of the Willamette Valley 14 or 15 years of age, more than two-fifths (45 per cent) had worked three or more seasons and nearly one-fourth (22 per cent) had worked four or more seasons, including some who had not migrated for work before the present season but had worked on farms in the localities where they lived. During the 12 months preceding the interview two-fifths of the children in each district had worked on farms while living at home as well as during migrations.

Kinds of Work.

The great majority of the migratory workers in each valley picked hops. (Table 11.) The Willamette Valley hop yards are extensive fields of vines, hung on overhead wire trellises stretched between posts from 12 to 20 feet high and in rows about 10 feet wide. At the height of the season many hundreds of family groups—men, women, and children—work in these yards. In one yard of 80 acres, for example, there were 160 pickers concentrated in a small section of the field at the time of the visit. The women and girls usually wear broad-brimmed straw hats and overalls, and all the workers wear heavy cotton gloves to protect their hands from the rough leaves and stems. The hop yards of the Yakima Valley are smaller than those of the Willamette Valley, but the children do the same kind of work in both areas. The work of picking hops is simple, as "yard men" are employed to do the heavy work of lifting and loading hop sacks and to lower the wire trellises so that the vines are within reach of all except the smaller children. The pickers grasp several clusters of the yellowish-green hops at a time and, stripping them from the vines, drop them into a basket which stands on the ground. This basket, when full, weighs about 25 pounds. (See illustration facing p. 32.) One picker is usually assigned to a row, but children under 12 years usually work in the same row as their mothers or older brothers and sisters. In each valley the majority of the working children under 10 picked hops. Some managers said that children did not pick "clean" (that is, they allowed too many leaves to fall into the basket), but they made the same complaint about many of the adult pickers. The chief hardship in picking is the standing for long hours in the hot sun; but a few workers had a rash called "hop poisoning," and others said they were affected by the acrid odor of the hops.

Berry picking is next in importance to hop picking from the point of view of the migratory workers. In the Willamette Valley berries had been picked by 180 children (more than three-fifths of those interviewed), and in the Yakima Valley, by 44 (more than one-fifth).

Practically all had done this work early in the summer, and few had picked berries in the districts selected for survey. Many children had picked raspberries or loganberries in eastern Multnomah County, about 50 miles from the section of the Willamette Valley chosen for survey. Considerable numbers of the children interviewed in the Willamette Valley had picked strawberries or raspberries or both, and two-fifths had picked loganberries. Only a few children in the Yakima Valley had picked loganberries. (Table 11.) Undoubtedly in normal seasons a larger proportion of the migratory workers in Oregon pick loganberries; but in the season of the survey "the bottom had dropped out of the loganberry market," and many growers, rather than hire labor, allowed the berries to rot on the vines.

TABLE 11.—*Principal crops harvested at various times during year by children in migratory families, by age; Willamette and Yakima Valleys*

Crop harvested	Children under 16 harvesting each specified crop									
	Total		Under 10 years		10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent	Number	Per cent[1]	Number	Per cent[1]	Number	Per cent	Number	Per cent
Willamette Valley: Total[2]	[3] 472	100.0	69	100.0	116	100.0	141	100.0	144	100.0
Picking—										
Hops	[3] 440	93.2	59	85.5	108	93.1	134	95.0	137	95.1
Small fruits[4]	[5] 291	61.7	34	49.3	82	70.7	90	63.8	84	58.3
Loganberries	[5] 182	38.6	20	29.0	52	44.8	59	41.8	50	34.7
Strawberries	[5] 156	33.1	19	27.5	43	37.1	48	34.0	45	31.2
Raspberries	107	22.7	15	21.7	29	25.0	33	23.4	30	20.8
Other small fruits	52	11.0	6	8.7	18	15.5	17	12.1	11	7.6
Orchard fruits[6]	71	15.0	3	4.3	13	11.2	27	19.1	28	19.4
Cherries	44	9.3	3	4.3	9	7.8	16	11.3	16	11.1
Picking up prunes	119	25.2	17	24.6	29	25.0	36	25.5	37	25.7
Yakima Valley: Total[2]	175	100.0	29	100.0	33	100.0	61	100.0	52	100.0
Picking—										
Hops	125	71.4	26	------	26	------	42	68.9	31	59.6
Small fruits[4]	39	22.3	2	------	9	------	16	26.2	12	23.1
Orchard fruits[6]	90	51.4	5	------	11	------	36	59.0	38	73.1
Pears and peaches	59	33.7	3	------	4	------	22	36.1	30	57.7
Prunes	41	23.4	2	------	6	------	20	32.8	13	25.0
Cherries	34	19.4	2	------	5	------	11	18.0	16	30.8

[1] Not shown where base is less than 50.
[2] The reason that the items do not add to the totals is that many of the children harvested more than one crop.
[3] Includes 2 children for whom age was not reported.
[4] Small fruits include strawberries, raspberries, loganberries, blackberries, and currants. Children in this group may have picked one or more varieties.
[5] Including 1 child for whom age was not reported.
[6] Orchard fruits include apples, pears, prunes, peaches, and cherries. Children in this group may have picked one or more varieties.

In the Yakima Valley 90 children (about half), and in the Willamette Valley 71 children (a much smaller proportion), had picked some kind of orchard fruit during the year but not necessarily in the locality in which they were working at the time of the interview. (Table 11.) A considerable number of children interviewed in the Willamette Valley, relatively as many younger as older children, had picked up prunes for drying. A small number of children in the Yakima Valley, mostly children at least 12 years old, had also

harvested prunes, but had picked them green from the tree for the fresh-fruit market, more difficult work than picking them up from the ground. A small number of children interviewed in each area had picked cherries. Although the study was made in the Yakima Valley during the peach and pear picking season and large numbers of migratory pickers were employed in the orchards visited there were comparatively few child pickers. Of the child workers included in the study in this area, 59 (about one-third) had picked either pears or peaches or both. At some time during the year a few children (17 in the Yakima Valley and 18 in the Willamette Valley) had picked apples. Children in families that "follow the fruit" often accompany their families to apple districts, but only some of the older children are hired to pick; the other children stay in camp while their parents work in the orchards.

Besides harvesting fruit or hops, 29 children (6 per cent of the migratory children working in the Willamette Valley) had pulled or shocked flax, and 46 (nearly 20 per cent of the migratory children in the Yakima Valley and a few of those in the Willamette Valley) had thinned apples. Other children (5 to 10 per cent, some in each area), especially children who had worked at their homes in other counties and States, had harvested vegetables or general farm crops or had done hoeing or weeding. Some had worked at several of these operations.

Hours.

The migratory children, like other hired workers, worked long hours in both the Willamette and the Yakima districts. In most of the Yakima Valley hop yards and orchards a 10-hour day—from 7 a. m. to 6 p. m. with an hour for lunch—was strictly observed. In the Willamette Valley hop yards there was more elasticity—many pickers began work about 7.30 a. m. and stopped at 5.30 p. m., though in some yards any picker who wished to begin work at 6.30 when the yard men did, could do so—and in the orchards hours were much shorter. On the day for which hours were reported four-fifths of the Willamette Valley children and more than one-half of those in the Yakima Valley districts had worked in hop yards, the remainder in orchards. Most of the Yakima Valley children who reported their hours had worked at least 10. (Table 12.) Two-thirds of the children reporting their hours in the Willamette Valley hop yards and prune orchards had worked more than 8 hours, but only one-third had worked 10 or more. Even in the Willamette Valley, however, the child workers had longer hours than in Eastern truck-farming districts, where a bare majority of the migratory children included in Children's Bureau surveys worked more than 8 hours a day, and very few reported a 10-hour day.[9]

[9] Child Labor on Maryland Truck Farms, p. 31; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, p. 36.

TABLE 12.—*Hours of field work of children in migratory families on sample day in the harvest season, by age; Willamette and Yakima Valleys*

Hours of field work on sample day	Children under 16					
	Total		Under 10 years	10 years, under 12	12 years, under 14	14 years, under 16
	Number	Per cent distribution				
Willamette Valley: Total	[1] 472		69	116	141	144
Total reporting	[1] 415	100.0	46	97	131	139
Less than 6 hours	[2] 74	17.8	10	14	25	24
6 hours, less than 8	52	12.5	5	12	18	17
8 hours even	16	3.9	1	5	5	5
More than 8 hours, less than 9	14	3.4	1	3	4	6
9 hours, less than 10	[2] 121	29.2	14	31	39	36
10 hours, less than 11	121	29.2	15	26	37	43
11 hours, less than 12	17	4.1		6	3	8
Not reporting	57		23	19	10	5
Yakima Valley: Total	175		29	33	61	52
Total reporting	160	100.0	22	26	60	52
Less than 6 hours	6	3.8	1	1	2	2
6 hours, less than 8	3	1.9	1	1	1	
8 hours even	7	4.4		1	5	1
More than 8 hours, less than 10	5	3.1		2	1	2
10 hours, less than 11	112	70.0	16	14	43	39
11 hours, less than 12	20	12.5	2	5	6	7
12 hours and over	7	4.4	2	2	2	1
Not reporting	15		7	7	1	

[1] Includes 2 children for whom age was not reported.
[2] Includes 1 child for whom age was not reported.

There was practically no difference in the working hours of boys and girls and only a slight tendency for older children to work longer than younger children. The whole family—father, mother, and children—usually came to the field together, sometimes bringing their lunch. They usually walked, but in some of the Willamette Valley hop yards where the camps were a mile or more from the fields they rode, either in their own cars or in the owner's truck. For some of the younger children under 10 years it was impossible to obtain information concerning the number of hours of work. Many of these children stayed in the fields all day with their parents but worked irregularly. The mothers sometimes allowed the children to work desultorily, or, after they had completed a certain task such as picking two baskets of hops, allowed them to play or sleep in the shadow of the vines. On the whole, however, younger as well as older children worked steadily, and a considerable number of children under 10 years in each valley had worked a 10-hour day. (Table 12.) Children of Russian-German parentage, regardless of the locality where they worked, practically always reported long hours. Of 108 children who reported their hours (equal numbers in the two valleys), nearly four-fifths had worked 10 hours or longer on the day before the interview.

Duration.

During the hop harvest most of the migratory workers worked every day except Sunday, as there were no rains at this season in either local-

ity to interfere with the work. About 10 per cent of the children (a percentage slightly smaller in the Yakima than in the Willamette Valley) had worked on Sunday as well as week days the week preceding the interview. Reports of the approximate number of hours the children had worked the week before the agent's visit were obtained for 401 children in the Willamette Valley and 155 in the Yakima Valley. The majority of the children (88 per cent in the Yakima Valley and 68 per cent in the Willamette Valley) had worked 48 hours or more; 70 per cent in the Yakima Valley but only 41 per cent in the Willamette Valley had worked 56 hours or more. Some in each valley had worked 64 hours or more. The majority of the children had worked much longer than the standard of 48 hours a week, which Washington and Oregon, like many other States, have adopted for children under 16 years of age employed in nearly all occupations other than farm work and domestic service.[10]

Although the children usually worked long hours during the three weeks of the hop season, some in each area had done no other kinds of work, and even those who had picked berries or other fruits in addition to hops had not worked continuously throughout the summer. All the children were questioned concerning the number of days they had worked during the 12 months preceding the interview, and all who had worked less than 6 days in that time were excluded from the survey. Most of the children in each area had worked at least 12 days. Nearly half (a slightly smaller proportion in the Yakima than in the Willamette Valley) had worked 30 days or more, including some children in each valley who had worked 90 days or more. Children who were 12 years of age and older, especially those who had worked at home besides working as hired laborers during the migrations, reported the longest working periods. (Table 13.)

TABLE 13.—*Duration of field work of children in migratory families, by district; Willamette and Yakima Valleys*

Number of days' work during year	Children under 16					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	647	100.0	472	100.0	175	100.0
Less than 30 days	328	50.7	232	49.2	96	54.9
30 days, less than 60	180	27.8	144	30.5	36	20.6
60 days, less than 90	95	14.7	62	13.1	33	18.9
90 days, less than 120	12	1.9	9	1.9	3	1.7
120 days and over	25	3.9	25	5.3		
Not reported	7	1.1			7	4.0

Earnings.

There was little difference in the earnings of hop pickers in the Yakima and Willamette Valleys; most of them earned at least $1 a day and a large proportion $2 or more, not including the bonus which most of them expected to receive. Table 14 shows the amounts

[10] Oregon, Industrial Welfare Commission Order No. 46, dated Aug. 12, 1919; Washington, Industrial Welfare Committee Order No. 31, dated Aug. 28, 1922.

which 309 children in the Willamette Valley and 68 in the Yakima Valley earned on the sample day for which data for hours were obtained. Reports of earnings of some of the younger children could not be obtained because many of them put the fruit or hops into the containers used by their mothers or older members of the family and did not keep their earnings separate. As a rule, however, the older children earned much more than children under 10 or 12 years. In the Yakima Valley children who picked orchard fruits usually earned more than children who did other kinds of harvesting. Most of the 64 children who had picked apples, pears, and peaches or prunes the day before the interview had earned at least $2, and 30 had earned $3 or more. Of 86 children in the Yakima Valley who reported weekly earnings and who had worked 48 hours or more the previous week early two-thirds (65 per cent) had earned $12 or more, and of 134 children in the Willamette Valley about half (51 per cent) who had worked the same hours and reported weekly earnings had earned this amount.

Some migratory families said that they could make "good money" at picking hops. Reports of seasonal earnings for family groups were not obtained, but when both parents and several children were working it is obvious that their earnings might be substantial. One father working in a Willamette Valley hop yard who did not keep his earnings separate from those of his 12-year-old son said that he and his boy, both of whom picked faster than average workers, had made $54.60 the previous week. The earnings of another family of father, mother, and two children, working in the same district, who had kept track of all checks received, are probably more nearly typical. In three weeks the whole family had made $107.30.

TABLE 14.—*Earnings at hop picking on sample day of children in migratory families, by age; Willamette and Yakima Valleys*

Earnings at hop picking on sample day	Children under 16 picking hops on sample day					
	Total		Under 10 years	10 years, under 12	12 years, under 14	14 years, under 16
	Number	Per cent distribution				
Willamette Valley: Total	[1] 367		52	91	110	112
Total reporting	[1] 309	100.0	37	69	97	104
Less than $1	52	16.8	21	18	7	6
$1, less than $1.50	[2] 71	23.0	8	27	22	13
$1.50, less than $2	70	22.7	5	16	25	24
$2, less than $3	[2] 80	25.9	2	8	33	36
$3, less than $4	30	9.7	1		8	21
$4, less than $5	6	1.9			2	4
Not reporting	58		15	22	13	8
Yakima Valley: Total	103		24	22	33	24
Total reporting	68	100.0	12	14	23	19
Less than $1	12	17.6	9	3		
$1, less than $1.50	7	10.3		2	3	2
$1.50, less than $2	16	23.5	2	3	8	3
$2, less than $3	16	23.5	1	5	7	3
$3, less than $4	16	23.5		1	5	10
$4, less than $5	1	1.5				1
Not reporting	35		12	8	10	5

[1] Includes 2 children for whom age was not reported.
[2] Includes 1 child for whom age was not reported.

SCHOOLING OF CHILD WORKERS

Migratory life seriously interferes with the children's school attendance. The beginning of the hop harvest in September in both the Yakima and the Williamette Valley coincides with the opening of the schools in many places from which the children come, and the strawberry season in June in some sections of Washington and Oregon begins before all the schools are closed. Children in families who "follow the crops" suffer most from irregular attendance, as they either do not go to school at all in the districts where their parents find work or else go irregularly to several schools in one year.

All except four of the child workers between the ages of 8 and 15, according to their parents' statements, had been enrolled in one or more schools during the year. Some of the children who were working in Oregon at the time of the interview had attended school in Washington, and some of these who were working in Washington had last attended school in Oregon; others had attended school in other States. The length of the school terms in the places from which the children came varied greatly; in both States, city schools usually had longer sessions than rural schools. The Portland schools were in session 194 days. But many of the rural schools in Oregon which the children attended were in session from 145 to 174 days, and many in Washington from 170 to 180 days. Because the schools in the hop and prune raising districts of Oregon did not open until after the season was over, children from Salem who picked hops missed no school, but all children from Portland, where the schools opened the first week of September, missed about three school weeks if they remained in the hop district until the end of the season.

An attempt was made to obtain attendance records for all child workers interviewed in the Yakima and Willamette Valleys who had been enrolled in schools of Washington and Oregon, either by visiting the schools or, where the schools were inaccessible, by correspondence. Records were obtained for somewhat more than half the children interviewed, including 258 children working in the Willamette Valley and 95 in the Yakima, and for proportionately more city children than rural. Records for the child workers whose schooling was the most irregular could not be found, as a rule, because these children had attended several schools during the year, or because they had attended isolated schools, or because they came from outside the two States.

Of children for whom school records were obtained (that is, those who had gone to school with some regularity the previous year) about half (48 per cent) in the Willamette Valley had attended school less than 90 per cent of the school term, and more than one-fifth (21 per cent) less than 80 per cent of the term. Child workers in the Yakima Valley, especially Russian-German children, were absent longer periods. (Table 15.) Children 14 and 15 years of age in both areas went to school with about the same regularity as children under 14. The regularity of their attendance depended on the permanency of the parents' residence more than on other factors. Nearly twice as many migratory workers as local workers in the two valleys (51 per cent of migratory workers and 27 per cent of local workers) had missed at least one school month. The poor

school attendance of child workers who were in the habit of migrating is also partly indicated by a comparison of the number of days of absence reported by children who had made three or more migrations with the number of days reported by those who had made one or two migrations only. About two-fifths of the children who had made one or two migrations and three-fourths of those who had made three or more migrations had missed 20 or more days of school; about one-seventh of the children in the former group as compared with nearly one-third in the latter group had been absent 50 days or more.

TABLE 15.—*Per cent of school attendance of children under 16 years of age in migratory families, by district in which they were working at time of interview; Willamette and Yakima Valleys*

Per cent of school attendance [1]	Working children under 16 attending school					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	632		463		169	
Total reporting	353	100.0	258	100.0	95	100.0
Less than 50 per cent	12	3.4	5	1.9	7	7.4
50–59	12	3.4	7	2.7	5	5.3
60–69	31	8.8	20	7.8	11	11.6
70–79	51	14.4	23	8.9	28	29.5
80–89	89	25.2	70	27.1	19	20.0
90–99	142	40.2	120	46.5	22	23.2
100	16	4.5	13	5.0	3	3.2
Not reporting	279		205		74	

[1] Per cent of school attendance was computed by dividing the number of days attended by the number of days in the school term.

Although no statistics are available, some idea of the school problem among children for whom no school records could be found may be obtained from their parents' statements. One father, for example, said that his child, a girl of 12, had been out of school about two months every fall for the last five years and that sometimes she missed a month and a half in the spring also. A family in which there were four children of school age had arrived in Portland about Christmas time and had left the city the end of the following April to go to eastern Washington for the strawberry picking. Members of another family which had moved from Idaho in their automobile were interviewed in Oregon in September. They said they had left home in February and had been "on the road ever since." None of the children in the three families had attended school since leaving home; parents in other families, however, reported that they sent their children to school in the districts where they were temporarily working. One family, for example, which had left home in March to train hops in the Willamette Valley had had the children enrolled in the local school in April, and five other families which had harvested apples in October in the Hood River Valley or the Yakima Valley reported that they had sent their children to school in the apple districts.

In most of the localities in both valleys where the study was made school officials recognize the attendance problem among migratory

children and interpret the law to apply to children who reside temporarily in the district. County attendance officers and local school boards in these districts feel the responsibility of getting such children to go to school. The number of children temporarily enrolled in such districts is shown by the flux of the school population in hop and fruit districts noted on pages 16 and 17. But when families move from county to county and from State to State the children's schooling depends largely on their parents' standards.

A considerable proportion of the children included in the study, as would be expected from their poor school attendance, were in grades lower than children of their ages are expected normally to be in. In this connection it should be remembered that children in about half the families had not migrated in previous years, so that the school progress had not been affected by a migratory life. The amount of retardation among these children as shown in Table 16 may be underestimated, because the children's statements as to grades completed could not be verified in nearly half the cases. Of the total number of migratory workers in both valleys between the ages of 8 and 16 almost two-fifths were retarded one or more years, older children of both valleys being more retarded than younger children. (Table 16.) A much larger proportion of the migratory child workers in the Yakima Valley were behind average grades for their ages than of migratory child workers in the Willamette Valley—59 and 31 per cent, respectively. The percentage of retardation among the Willamette Valley children was considerably higher than the average for children attending city schools, and that of the Yakima Valley children was more than twice the average. (See p. 16.) The higher percentage of retardation among children of the Yakima Valley is probably due to two causes: First, relatively more Russian-German children, whose progress in school was especially slow, were interviewed in the Yakima Valley; and, second, relatively more children of native parentage belonged to families that made a practice of "following the fruit" in the Yakima Valley than in the Willamette Valley.

TABLE 16.—*Progress in school of working children in migratory families, by age; Willamette and Yakima Valleys*

Age at the time of interview	Working children between 8 and 16 years of age attending school								
	Total	Retarded		Normal		Advanced		Progress not reported	
		Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	[1] 617	238	38.6	324	52.5	47	7.6	[1] 8	1.3
8 years, under 12	225	64	28.4	137	60.9	22	9.8	2	0.9
12 years, under 14	200	81	40.5	105	52.5	12	6.0	2	1.0
14 years, under 16	190	93	48.9	82	43.2	13	6.8	2	1.1
Willamette Valley	[1] 454	142	31.3	262	57.7	45	9.9	[1] 5	1.1
8 years, under 12	171	41	24.0	106	62.0	22	12.9	2	1.2
12 years, under 14	140	44	31.4	85	60.7	11	7.9	----	----
14 years, under 16	141	57	40.4	71	50.4	12	8.5	1	0.7
Yakima Valley	163	96	58.9	62	38.0	2	1.2	3	1.8
8 years, under 12	54	23	42.6	31	57.4	----	----	----	----
12 years, under 14	60	37	61.7	20	33.3	1	1.7	2	3.3
14 years, under 16	49	36	73.5	11	22.4	1	2.0	1	2.0

[1] Includes 2 children whose exact ages were not learned.

CAMPS FOR MIGRATORY WORKERS

The living conditions of children who travel about with their families, especially of those in families which move from camp to camp and are absent from their homes for long periods, constitute an important problem. In the hop yards and orchards, as in other districts where seasonal workers are engaged, the workers are housed in labor camps on the owners' premises. The hop pickers' camps in the Willamette Valley are villages in themselves; these camps usually house several hundred persons, and the camp on one ranch visited housed more than 1,000. In most of the camps there were tents, frame shacks, a store, and sometimes a meat market, a restaurant, a company office, and a dance hall. In the prune orchards of the Willamette Valley only a few families were encamped. In the Yakima Valley camps for both hop pickers and orchard workers were small, accommodating usually from 50 to 100 persons. In all the camps except the orchard camps of the Yakima Valley there appeared to be a preponderance of families with children. In most of the larger camps it was impossible to obtain estimates of the numbers of adults and children; in the smaller camps for hop pickers, 8 in the Willamette Valley and 9 in the Yakima Valley, however, there were 1,696 persons at the time of the interview, including 726 under 16 years of age.

Housing.

Overcrowded conditions in bunk houses and tents prevailed. Nearly three-fifths of the families working in the Willamette Valley and nearly all those in the Yakima Valley lived in tents, which in the Willamette Valley were usually provided by the growers and in the Yakima Valley by the families. In the Willamette Valley as a rule they were either 10 by 12 feet or 12 by 14 feet, had canvas sides and sloping roofs, and were pitched on the ground, although occasionally they had wooden floors. In the Yakima Valley tents were of all sizes and varieties including makeshift awnings rigged over automobiles. The type of frame house most common in the Willamette Valley was the row house, 1 room wide and 6 to 12 rooms long, each room being about 10 by 12 feet. The houses were roughly constructed, weatherboarded outside and not ceiled, and the partitions between the rooms sometimes had cracks between the boards. Each room had one window (which in some rooms, but not all, could be opened and shut), a door opening outdoors, and, except in one or two shacks which had no floor but the ground, a board flooring. Most owners provided housing free of charge, but a few charged a moderate rental. In one camp, where the accommodations were unusually good, there was one large building, containing 68 rooms, each of which was supplied with running water and electric light. Rent for each of these rooms was $3 for the season.

Generally every available space was utilized for sleeping. The great majority of the 83 families in the Yakima Valley had only one tent each, and more than half of the 265 families in the Willamette Valley had only one room or one tent each; the remainder had two or occasionally three. Some families in the Willamette Valley who had brought a tent with them used the grower's tent for eating and living purposes and their own tent for sleeping. No owners in either valley

provided beds for tents. Many families slept on the ground on straw which they covered with a piece of old carpet or blanket; other families brought camp cots with them or set up bed springs on boxes. Some families slept in their automobiles, one family of 11 having two mattresses in their truck and two underneath it. In another family the six children were sleeping in an old-fashioned covered wagon and their parents on the ground under an awning. Row houses of the Willamette Valley were usually provided with two built-in bunks, one on top of the other, and these were filled with straw.

Tents and row houses in camps of both areas were extremely crowded, but in the Yakima Valley, where many large families had only one small tent, they were more congested than in the Willamette Valley. Two-thirds of the families in the Willamette Valley and practically all in the Yakima Valley had three or more persons per tent or room; in the Willamette Valley only 20 per cent but in the Yakima Valley 63 per cent had five or more persons per room. (Table 17.) Native as well as foreign-born families had extremely crowded quarters. Sixteen native and ten Russian-German families in the Yakima area had seven or more persons to a tent, and many of these tents were scarcely large enough to allow father, mother, and five children to lie side by side. No camps were found in either valley like those on certain truck farms of Maryland where migratory pickers and their families lived and slept in one large room, but more crowded conditions prevailed than in camps for cranberry pickers in New Jersey, where, as in the present study, each family had one or more separate rooms.[11]

TABLE 17.—*Average number of persons per room in migratory families living in camps; Willamette and Yakima Valleys*

Average number of persons per room or tent	Migratory families living in camps					
	Total		Willamette Valley		Yakima Valley	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	336	100.0	256	100.0	80	100.0
1, less than 2	20	6.0	19	7.4	1	1.3
2, less than 3	71	21.1	68	26.6	3	3.8
3, less than 4	91	27.1	80	31.3	11	13.8
4, less than 5	52	15.5	37	14.5	15	18.8
5, less than 6	33	9.8	21	8.2	12	15.0
6, less than 7	28	8.3	16	6.3	12	15.0
7, less than 8	20	6.0	10	3.9	10	12.5
8, less than 9	9	2.7	2	0.8	7	8.8
9, less than 10	6	1.8	2	0.8	4	5.0
10 and over	6	1.8	1	0.4	5	6.3

The cooking and other living arrangements were more adequate. The space allotted each family and the resulting degree of privacy varied greatly in the different camps of the two areas. Usually there was enough space about the tents, which in the Willamette Valley were often arranged in rows under a grove of trees, to set up benches, a table, and a stove, and sometimes to park an automobile. Each

[11] Child Labor on Maryland Truck Farms, pp. 25–29; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, pp. 53–56.

family had some kind of stove, some using sheet-iron stoves provided by the owner, which were set on poles about 2 feet from the ground; others brought camp stoves, and still others used an iron cover placed over a hole in the ground. In one large camp of the Willamette Valley community stoves were provided, but most families preferred to use their own. Some families who had brought canvas flies to rig up in front of their tents also arranged canvas or burlap sides about their tables; others lived and ate in the open.

Sanitation.

Sanitation of labor camps in Washington and Oregon is regulated. The Washington State Board of Health and the Oregon State Industrial Welfare Commission have made regulations in respect to labor camps which have the force of law.[12] The Oregon regulations apply only to camps in berry fields, hop yards, and orchards, and the Washington regulations specifically include these among the labor camps subject to regulation. In Washington the site and the water supply of all labor camps housing five or more persons, whether temporary or permanent camps, must be approved by State and local board-of-health officials. There are also certain specifications concerning the construction of bunk houses and the amount of air space to be provided per person, which, however, do not apply to tent colonies like those in which the families included in the Yakima study lived. In Oregon there are no specifications regarding the construction of buildings in camps for hop and fruit pickers, but the regulations apply to drinking water, toilets, and garbage disposal. Inspections to enforce the regulations were not made, so far as could be ascertained, in the districts studied in Washington. In the hop yards and prune orchards of Oregon, however, the State industrial welfare commission made inspections of the sanitary conditions in the camps.

Privies were provided in all camp grounds in both areas, but the number was often inadequate. In one of the Willamette Valley camps flush closets were furnished. The order of the Oregon Industrial Welfare Commission provides for separate toilets for men and women in camp grounds and fields, toilets to be provided "on a basis of not less than 1 seat for every 20 women employed." In 10 of the 15 Willamette Valley hop camps visited the provision regarding separate toilets was observed. But of the 8 yards where a census was taken of the number of campers, there were 4 which had only 1 privy for 40 or more persons, the others having somewhat more adequate provision. Although most of the camps in the Yakima Valley were small, some of them had very inadequate toilet arrangements; in two of these camps there was only 1 privy for 50 or more persons.

In the camps of both the Yakima and Willamette Valleys the water supply, from drilled wells either located on the grounds or piped to the grounds, was as a rule adequate. In the largest camp visited there had been some illness, and complaint was current regarding the water, but it had been declared safe by State officials after tests had been made for typhoid bacilli. On the large ranches,

[12] Washington, Rules and Regulations of the State Board of Health, adopted July 27, 1921, secs. 63, 64, 70 (a), 70 (b). State of Washington, Department of Health, Olympia, 1921. Oregon, Industrial Welfare Commission Order No. 49, dated May 25, 1922.

PICKING PRUNES, YAKIMA VALLEY

RASPBERRY PICKER, PUYALLUP VALLEY

PICKING HOPS, WILLAMETTE VALLEY

TYPES OF FRAME SHACKS, PUYALLUP VALLEY

COOKING ARRANGEMENTS, CAMP FOR HOP PICKERS, WILLAMETTE VALLEY

according to the requirement of the Oregon State Welfare Commission, water was carried to the pickers in the field, either in barrels or in water wagons furnished with a tank and spigots. In one Yakima orchard "water boys" carried the water in tin pails and served it with tin dippers.[13] In the smaller camps the maintenance of sanitary conditions was left to the individual campers, but in some of the large and well-organized hop-picking camps the owner carefully supervised the sanitation, appointing an employee to clean and disinfect privies, empty garbage cans, and clean up camp grounds.

Other Features of Camp Life.

Buying food supplies at reasonable prices was a problem, according to many pickers. With few exceptions employers furnished no provisions, and prices at the stores on camp grounds, which were run by local dealers through concessions, were high. In order to buy supplies, pickers who owned cars and had ready money drove to town, 3 to 6 miles from many of the hop camps; families with no money were obliged to trade at the camp stores where tickets were accepted. There they could buy fresh milk, fresh fruit, ice cream, soft drinks, and staple groceries and could give orders for meat. In the Yakima Valley most of the families who did not drive to town bought their supplies from hucksters' wagons.

Special provision for recreation in the evening was made in a few camps of the Willamette Valley. Some camps had dances, either in regular dance halls conducted by the management of the camps or by outsiders through concessions. In two dance halls, where outsiders from the neighboring towns were admitted, the watchman or deputy sheriff employed by the camps stated that the riffraff from the towns made trouble and that whisky had been smuggled into one camp. Several families said that they did not allow their girls to attend the dances. In camps of both areas where there was no organized recreation the pickers often arranged bonfires or games. The manager of the largest camp in the Willamette Valley employed a recreation director, two assistants, two nurses, and two matrons. The recreation workers directed the games and camp fires, organized the musical talent of the pickers, and endeavored to keep rowdy persons out of the dance hall. The recreation director also had general charge of the sanitary condition of the camp.[14]

---

[13] Common drinking cups are prohibited. Washington, Rules and Regulations of the State Board of Health, adopted July 27, 1921, sec. 57 (a).

[14] Under the auspices of the Council of Women for Home Missions health and recreation centers were conducted in the summers of 1924 and 1925 on a few ranches in hop and fruit growing sections in Oregon. The salaries of the workers in these centers were paid by the growers, and the cost of supervising the work was paid by the council.

CHILD LABOR IN BERRY FIELDS OF THE PUYALLUP VALLEY, WASH.

In the berry fields of the Puyallup Valley, Wash., both local and migratory child workers are employed during the three or four weeks of the raspberry season in July and to a lesser extent during the strawberry season in June and the blackberry season in August and September. Some of the strawberry pickers remain for the raspberry season; but because the blackberry season does not begin until the middle of August about three weeks after the raspberry harvest, an entirely new set of migratory pickers is engaged for the blackberry picking. Besides small fruits some vegetables are raised in the district selected for the survey, principally lettuce, cabbage, cauliflower, and celery. On the truck farms, which are generally in the hands of Japanese tenant farmers, only local workers are employed.

The berry "ranches," so called although they are usually only a few acres in extent, are clustered near the Puyallup River on the outskirts of two prosperous towns, not far from the cities of Tacoma and Seattle, Tacoma being three-fourths of an hour away by motor bus and Seattle two hours. Both the berry ranches and the truck farms are small and are intensively cultivated. A few berry ranches in the district are 20 acres or more in extent, and the largest ranch visited had 60 acres of raspberries and 30 of strawberries; ranches of 3 or 4 acres on which raspberries only were grown were common. About nine-tenths of the 117 farming families whose children worked had 5 or more acres of berries or vegetables, but less than one-half had 10 or more acres, and the size of their farms seldom exceeded 20 or 30 acres. Even for raspberry patches of 2 or 3 acres, however, sufficient local workers could usually not be obtained for the harvesting, and small as well as large growers were obliged to bring additional help from the cities.

THE LABOR SUPPLY

LOCAL WORKERS

For the harvest season berry growers engage what local workers they can find, but rely also on their own and their neighbors' children. Of the 280 child workers who lived in the Puyallup Valley district seven-tenths belonged to families of berry growers or truck farmers, and small numbers, to families in which the head of the household did no farm work. (Table 18.) Like the child workers of the Yakima and of the Willamette Valley, the majority of the children were of native white parentage, but 28 per cent were of foreign-born white parentage and 17 per cent, of Japanese. A few were American Indian. Among the white families in which the father was foreign born, Scandinavians and Germans predominated. Most of these had been in the United States many years and were to a large extent

Americanized; they spoke English and subscribed to American newspapers or periodicals. Most of the Japanese had been in this country as long as the Europeans, and most of the Japanese fathers could speak English and were literate, but many of the Japanese mothers could not speak English nor could they read and write.

Most of the Japanese but practically none of the white farmers were truck growers. The Japanese farmers as a rule were tenants who paid cash rent for their holdings for a term of years restricted by the State law. Most of the white farmers who raised berries owned their land. Many of the farmers, both owners and tenants, supported their families entirely by raising berries or truck, but other farmers supplemented their incomes by working in the local industries. In 86 families (nearly half of those included in the study) the head of the household reported occupations other than farm work or in addition to it. Twenty-one were employed in factories or mills, some of them "commuting" for work in Tacoma; others were skilled mechanics, railroad employees, or storekeepers; and several were clerical or professional workers.

TABLE 18.—*Economic status of chief breadwinner in local families, by working status of children; Puyallup Valley*

Economic status of chief breadwinner	Children under 16 working during year—							
	Total		On home farm only		On other farms only		On home farm and other farms	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Total	280	100.0	120	100.0	102	100.0	58	100.0
Farm owner	148	52.9	85	70.8	25	24.5	38	65.5
Farm tenant	52	18.6	31	25.8	4	3.9	17	29.3
Farm laborer	20	7.1	3	2.5	16	15.7	1	1.7
Nonagricultural	60	21.4	1	0.8	57	55.9	2	3.4

The majority of the white families whose children worked, whether the parents were native or foreign born, lived in the thickly settled valley in comfortable, substantially built bungalows of two stories. Behind many of the houses were several acres of carefully cultivated raspberry bushes, and on the edge of the field were low shacks which served to house the migratory pickers. Japanese families were generally not so well housed as the white families, some of them living in unpainted shacks or sheds of three or four rooms with no modern conveniences. Many families lived near enough to the towns to use the town water supply and electric light. About half the families, including only a few of the Japanese, had electric light, and a somewhat larger proportion had running water and kitchen sinks. Overcrowding, although present in some houses, was not a serious problem, at least among the white families. About one-tenth of the 173 families reporting (11 white and 8 Japanese) had two or more persons per room.

MIGRATORY WORKERS

Migratory workers do a great deal of the berry picking; 359 migratory child workers (only a very small proportion of those present in the districts surveyed) were included in the study. To find and keep sufficient numbers of pickers for the raspberry season and to get pickers with any previous experience is a problem, according to the growers interviewed. Growers make little attempt to engage men for picking berries but advertise for girls and for women with children over 10 and 12 years. There is no concerted action by the berry growers' associations to engage workers, and individual berry growers are dependent on their own efforts to obtain an adequate number of pickers. As in other districts, owners advertise extensively in the city papers and sometimes also correspond with former pickers or visit them. Owners of large ranches sometimes send a truck to the docks and railroad stations of Seattle or Tacoma to pick up what families they can find. Arrangements with pickers are usually made informally, often over the telephone, but some of the larger employers send out a form letter describing the conditions of the work, the supplies provided, and the pay offered. Transportation, at least from the end of the bus line to the ranch, is usually furnished families who desire it. Two-fifths of the families included in the study, however, had provided all their own transportation, either paying their way in the bus or coming out in automobiles of friends or relatives. Unlike workers in the other districts surveyed, the berry pickers are not obliged to bring a great deal of baggage with them, as the growers provide not only housing but also furnishings, except bedding and dishes.

The families who migrate to this area for work in the berry fields are of a different type from the transient families in the Yakima and Willamette Valleys. Few families that make a practice of harvesting fruit come to the Puyallup Valley. The workers who come to pick berries are usually women and children from neighboring towns and cities who come "to the country" for a few weeks "for a summer outing" and then return to their homes. Only 5 per cent of those included in the study had come from a distance; that is, from other States or Canada. Some had come from other parts of Pierce County, from adjacent counties, or from localities bordering on Puget Sound; seven-tenths had come from Tacoma or Seattle. The majority had made but one migration during the year. (Table 19.) Most of the families, including some of those who had migrated twice during the 12 months preceding the interview, had picked raspberries only, but a few had picked strawberries or blackberries. Large numbers of the families had had no previous experience with berry picking, and 71 per cent had never before migrated to the berry fields or to any other district for field work.

The families differed from one another greatly in social and economic status. Some of them were friends and relatives of the berry growers. Although the majority were native white, in about two-fifths of the white families—a larger proportion than among the migratory families of the Yakima and Willamette Valleys—the fathers were of foreign birth, most of them Scandinavian, but a few of various other nationalities. Four per cent were Indian. There were no Japanese. Few of the foreign born were recent immigrants, and practically all spoke English. Most of the white parents were literate,

but a few of the foreign-born fathers and some of the mothers could not read and write even their own language. Both native and foreign-born fathers were engaged in many different occupations, ranging from professional pursuits to unskilled labor. Two-fifths of them were employed in manufacturing or mechanical occupations. A few were foremen in factories or contractors, and the remainder were skilled or unskilled operatives and laborers. Among those in nonmanufacturing occupations were loggers, barbers, janitors, longshoremen, motormen, conductors, store proprietors, traveling salesmen, and mail clerks.

WORK OF LOCAL AND MIGRATORY CHILDREN

The principal work of local children and the only work of migratory children was berry picking. Practically all the children included in the study had picked raspberries. A large number of local children, but only a small number of migratory children, had picked strawberries also. It was usual for children over 10 or 12 years of age, whose homes were in the berry districts, both children of berry growers and children in nonfarming families, to help with the berry picking. Of 374 children from 6 to 15 years of age living in the three selected school districts at the time the study was made, 45 per cent had worked during the year on fruit or truck crops. Many of the children were employed as hired laborers. (Table 18.) Even children whose fathers were growers employing migratory workers did field work. On some ranches, especially the larger ones, the older children of the owners did not pick but helped their mothers inspect the berries and give out pay tickets to the pickers.

TABLE 19.—*Localities from which families came, by number of migrations during the year; Puyallup Valley*

Sections from which migratory families came	Migratory families with children under 16 picking small fruits						
	Total		Number of migrations during year				
			One		Two		Three and more[1]
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution	
Total	[2] 220	100.0	145	100.0	62	100.0	[2] 13
Pierce County	102	46.4	59	40.7	38	61.3	5
Tacoma	79	35.9	46	31.7	30	48.4	3
Other parts of county	23	10.5	13	9.0	8	12.9	2
King County	83	37.7	59	40.7	21	33.9	3
Seattle	75	34.1	53	36.6	20	32.3	2
Other parts of county	8	3.6	6	4.1	1	1.6	1
Other counties in State	24	10.9	19	13.1	3	4.8	2
Outside State	10	4.5	8	5.5	----	----	2

[1] Per cent distribution not shown where base is less than 50.
[2] Includes 1 family for which section was not reported.

AGE AND SEX OF CHILD WORKERS

The majority of the children included in the study (70 per cent of the local workers and 62 per cent of the migratory) were under 14 years of age. As among the workers in the Willamette and Yakima

Valleys, only a small percentage as compared with the children on Eastern truck farms were under 10. Nine per cent of each group in the Puyallup Valley districts had not reached their tenth birthday at the time of the interview, whereas the proportions of workers under 10 on truck and fruit farms in New Jersey, Maryland, and Virginia ranged from 16 to 29 per cent.[1] (Table 20.) Among both local and migratory children under 12 years of age there were more boys than girls, but among migratory children of 14 and 15 years there were almost twice as many girls as boys. Growers advertise for girls rather than for boys, because they say that girls of 14 years and older pick faster and are more persevering in their work than boys of the same ages. Among local children almost as large a proportion of children under 12 as of those over 12 had worked as hired laborers. The majority of the local workers, but only a small proportion of the migratory, had done field work in other years; four-fifths of the local workers, but less than two-fifths of the migratory, had worked before the season the survey was made. Among workers 14 and 15 years of age 61 per cent of the local workers, but only 16 per cent of the migratory, had worked three seasons or more, and not necessarily consecutively.

TABLE 20.—*Ages of local and migratory child workers, by sex; Puyallup Valley*

Age at time of interview	Children under 16					
	Total		Boys		Girls	
	Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Local: Total	280	100.0	146	100.0	134	100.0
Under 8 years	4	1.4	3	2.1	1	.7
8 years, under 10	21	7.5	10	6.8	11	8.2
10 years, under 12	76	27.1	48	32.9	28	20.9
12 years, under 14	92	32.9	48	32.9	44	32.8
14 years, under 16	84	30.0	35	24.0	49	36.6
Not reported	3	1.1	2	1.4	1	.7
Migratory: Total	359	100.0	162	100.0	197	100.0
Under 8 years	3	.8	3	1,9	----	----
8 years, under 10	30	8.4	13	8.0	17	8.6
10 years, under 12	78	21.7	44	27.2	34	17.3
12 years, under 14	112	31.2	52	32.1	60	30.5
14 years, under 16	134	37.3	48	29.6	86	43.7
Not reported	2	.6	2	1.2	----	----

KINDS OF WORK

Child workers of all ages do raspberry picking, although, according to the rules of one of the berry growers' associations, "no children under 10 years of age are allowed in the yards, as they destroy more berries and vines than their services are worth." Despite this rule all the resident and migratory children under 10 included in the study had picked raspberries. (Table 21.) Picking berries for shipment, as is explained on page 10, requires care. In the Puyallup Valley most of the berries picked during the early part of the season are

[1] Child Labor on Maryland Truck Farms, pp. 8, 29; Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 8; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, pp. 7, 33.

designed for shipment; berries picked in the latter part of the season and those softened by rain are sent to canneries. Before shipment they are usually inspected and graded at the shipping office of the cooperative associations, and if not up to standard are shipped short distances or consigned to canneries. Sometimes pickers are required to sort the berries as they pick, choosing firm berries for the "shipping cup" and soft, dark berries for the "cannery cup." Two "cups" or baskets are placed in a carrier worn about the picker's waist, the cannery cup holding 1 quart and the shipping cup 1 pint. Picking raspberries is not hard work, however, because the canes, as the fruit-bearing branches are commonly called, are held in place by wires and are within easy reach of all except small children, and as the bushes are from 6 to 8 feet high in the harvest season they afford some shade. (See illustration facing p. 32.)

TABLE 21.—*Kinds of harvesting done by children in local and migratory families, by age; Puyallup Valley*

Kind of harvesting	Children under 16 doing each specified kind of harvesting								
	Total		Under 10 years [1]	10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent		Number	Per cent	Number	Per cent	Number	Per cent
Local: Total [2]	[3] 280	100.0	25	76	100.0	92	100.0	84	100.0
Picking small fruits [4]	[3] 261	93.2	25	69	90.8	88	95.7	76	90.5
Raspberries	[3] 257	91.8	25	68	89.5	87	94.6	74	88.1
Strawberries	141	50.4	13	36	47.4	51	55.4	41	48.8
Other small fruits	67	23.9	7	14	18.4	20	21.7	26	31.0
Migratory: Total [2]	[5] 359	100.0	33	78	100.0	112	100.0	134	100.0
Picking small fruits [4]	[5] 359	100.0	33	78	100.0	112	100.0	134	100.0
Raspberries	[5] 359	100.0	33	78	100.0	112	100.0	134	100.0
Strawberries	50	13.9	5	11	14.1	12	10.7	22	16.4
Other small fruits	37	10.3	3	10	12.8	12	10.7	12	9.0

[1] Per cent not shown where base is less than 50.
[2] The reason that the items do not add to the totals is that many of the children harvested more than one crop.
[3] Includes 3 children for whom age was not reported.
[4] Small fruits include strawberries, raspberries, loganberries, blackberries, and currants. Children in this group may have picked one or more varieties.
[5] Includes 2 children for whom age was not reported.

Strawberries in this district must be picked carefully. One mother remarked that the "boss" would not allow her boy of 7 years to work in the strawberry patch but that she hoped he would be allowed to pick raspberries.

Of the 191 local and migratory children who picked strawberries 9 per cent were under 10 years of age. This proportion is much smaller than the proportion of child strawberry pickers under 10 in small-fruit growing areas of the Atlantic coast, where berries are not graded so carefully for long-distance shipment. Near Norfolk, Va., for example, the proportion is about one-fourth, and among certain groups of child workers on Maryland truck farms it is between one-fourth and one-third.[2]

[2] Child Labor and the Work of Mothers on Norfolk Truck Farms, p. 8; and unpublished data regarding children on Maryland truck farms.

Besides picking strawberries and raspberries, a small number of children had picked other kinds of berries, mostly blackberries, but some gooseberries, currants, and black raspberries. Cherries, other orchard fruits, and hops are not raised in this area to any extent, and the number of children who harvested orchard fruits or hops was negligible.

Practically no migratory children had done any work except picking fruit, and few local workers were hired for any other work. About one-fourth of the children living in the districts studied, including about twice as many boys as girls, did hoeing or weeding on their fathers' farms, and a smaller proportion, mostly boys of 12 years or older, did plowing or cultivating, or pruned and trained berry bushes on the home farm. (Table 22.) It might be expected that more children of berry growers would have worked on the berry bushes, doing such work as cutting out old canes, topping bushes, or tying new canes to the wires, but this work requires both skill and strength and is usually done by adults. Few children in this district reported transplanting strawberry plants, an important part of children's work in some small-fruit districts. Most of the children in the Puyallup Valley who had done transplanting, or planting, or harvesting vegetables and many of those who had done hoeing and weeding were children of Japanese truck farmers. On the farms of the Japanese truck growers the whole family—father, mother, and three or four children—work together, getting down on their hands and knees to weed or transplant the long rows of lettuce, cauliflower, and celery.

TABLE 22.—*Principal kinds of work done during year by children in local families, by sex; Puyallup Valley*

Kind of work	Children under 16 doing each specified kind of work					
	Total		Boys		Girls	
	Number	Per cent	Number	Per cent	Number	Per cent
Total [1]	280	100.0	146	100.0	134	100.0
General farm work:						
Preparing ground [2]	33	11.8	29	19.9	4	3.0
Planting and transplanting	32	11.4	24	16.4	8	6.0
Hoeing	73	26.1	50	34.2	23	17.2
Weeding and thinning	73	26.1	48	32.9	25	18.7
Harvesting small fruits [3]	261	93.2	130	89.0	131	97.8
Raspberries	257	91.8	126	86.3	131	97.8
Strawberries	141	50.4	71	48.6	70	52.2
Other small fruits	67	23.9	36	24.7	31	23.1
Harvesting vegetables	45	16.1	29	19.9	16	11.9
Pruning and training berry bushes	24	8.6	15	10.3	9	6.7

[1] The reason that the items do not add to the totals is that most of the children did several kinds of work during the year.
[2] Includes plowing, harrowing, disking, dragging, and cultivating.
[3] Small fruits include strawberries, raspberries, loganberries, blackberries, and currants. Children in this group may have picked more than one variety.

HOURS

The hours the children worked in the Puyallup raspberry fields were not, as a rule, nearly so long as the hours in the hop yards and orchards of the other districts surveyed, although on many raspberry

ranches the nominal hours were from 7 or 8 a. m. until 6 p. m. On only two or three ranches was a 9 hour or 10 hour day strictly enforced; on these the field boss called the pickers or rang a gong in the camp quarters in the morning and after the noon hour. On many ranches, although the owners complained about the idleness of some of the pickers, especially the girls who stayed in camp and the boys who went swimming in the afternoons, they allowed them to work the hours they wished.

Seven-tenths of the child workers (about equal proportions among local and migratory workers) had worked six hours or more on the last day before the agent's visit, a day which may be taken as typical of a working day in the harvest season because practically all the migratory and more than three-fourths of the local workers had been working in the raspberry fields on that day. Some children, however, in these berry fields as well as in the hop yards of the other two areas surveyed, had worked long hours. One-third of the migratory and one-fourth of the local child workers in this area had worked more than 8 hours a day; 12 per cent of the migratory and 9 per cent of the local child workers had worked 10 hours a day or longer. Among local children those who worked for their parents reported longer hours than those who worked for other farmers. Few local berry pickers under 12 years of age reported long hours, but nearly as large a proportion of the migratory pickers under 12 as of children older than this had worked more than 8 hours. (Table 23.)

TABLE 23.—*Hours of work of children in local and migratory families on sample day in the harvest season, by age; Puyallup Valley*

Hours of field work on typical day	Children under 16								
	Total		Under 10 years [1]	10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent distribution		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Local: Total	[2] 280		25	76		92		84	
Total reporting	[2] 204	100.0	11	57	100.0	69	100.0	64	100.0
Less than 6 hours	59	28.9	4	22	38.6	20	29.0	13	20.3
6 hours, less than 8	[3] 55	27.0	6	19	33.3	16	23.2	13	20.3
8 hours even	37	18.1		8	14.0	15	21.7	14	21.9
More than 8 hours, less than 9	14	6.9		1	1.8	5	7.2	8	12.5
9 hours, less than 10	[4] 21	10.3	1	3	5.3	5	7.2	10	15.6
10 hours, less than 11	13	6.4		3	5.3	5	7.2	5	7.8
11 hours, less than 13	5	2.5		1	1.8	3	4.3	1	1.6
Not reporting	76		14	19		23		20	
Migratory: Total	[4] 359		33	78		112		134	
Total reporting	[4] 338	100.0	26	70	100.0	109	100.0	131	100.0
Less than 6 hours	105	31.1	13	25	35.7	32	29.4	35	26.7
6 hours, less than 8	71	21.0	5	15	21.4	24	22.0	27	20.6
8 hours even	[3] 50	14.8	1	7	10.0	16	14.7	25	19.1
More than 8 hours, less than 9	8	2.4		3	4.3	3	2.8	2	1.5
9 hours, less than 10	[3] 65	19.2	4	11	15.7	20	18.3	29	22.1
10 hours, less than 11	35	10.4	3	8	11.4	12	11.0	12	9.2
11 hours, less than 13	4	1.2		1	1.4	2	1.8	1	0.8
Not reporting	21		7	8		3		3	

[1] Per cent not shown where base is less than 50.
[2] Includes 3 children for whom age was not reported.
[3] Includes 1 child for whom age was not reported.
[4] Includes 2 children for whom age was not reported.

DURATION

The majority of the child workers, both local and migratory, worked at least six days a week, six or eight hours daily, and some of them worked also on Sundays. Nearly half the migratory, and about one-fifth of the local child workers had worked on the Sunday preceding the interview. Nearly three-fifths of the migratory and about half as large a proportion of the local children had worked 48 hours or longer the week preceding the interview.

Local workers, although not working relatively as many hours daily or weekly as the migratory, worked many more days during the year. The migratory workers were usually employed only for three weeks during the height of the raspberry season, in July, but the local workers picked raspberries that ripened before the arrival of the migratory workers and after their departure, besides picking strawberries or helping with other farm work. Some of the migratory workers interviewed at the beginning of the season had worked fewer than 12 days, and the majority had worked fewer than 30 days during the year. Almost three-fourths of the local children reported at least 30 days' work, and more than one-fourth, 60 days' work or more. (Table 24.) Local workers in this area worked about as long as local child workers in the Yakima and Willamette Valleys. In the Puyallup Valley, as in the other districts studied, it was the children between 12 and 16 years of age, including most of the Japanese children of these ages, who worked the longest periods, some of the Japanese children working every day on the truck farms from the middle of May, when school closed, to the first week in September, when school opened.

TABLE 24.—*Duration of field work of children in local and migratory families, by age; Puyallup Valley*

Number of days of work during year	Children under 16								
	Total		Under 10 years [1]	10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent distribution		Number	Per cent distribution	Number	Per cent distribution	Number	Per cent distribution
Local: Total	[2] 280		25	76		92		84	
Total reporting	[3] 237	100.0	21	65	100.0	75	100.0	74	100.0
12 days, less than 30	[4] 66	27.8	8	23	35.4	20	26.7	14	18.9
30 days, less than 60	[4] 102	43.0	11	30	46.2	33	44.0	27	36.5
60 days, less than 90	32	13.5	2	5	7.7	9	12.0	16	21.6
90 days, less than 120	17	7.2		1	1.5	6	8.0	10	13.5
120 days and over	20	8.4		6	9.2	7	9.3	7	9.5
Not reporting	[4] 43		4	11		17		10	
Migratory: Total	[3] 359		33	78		112		134	
Total reporting	[3] 350	100.0	31	73	100.0	111	100.0	133	100.0
6 days, less than 12	74	21.1	10	15	20.5	22	19.8	27	20.3
12 days, less than 30	[3] 205	58.6	12	42	57.5	68	61.3	81	60.9
30 days, less than 60	57	16.3	7	10	13.7	17	15.3	23	17.3
60 days, less than 90	12	3.4	2	5	6.8	4	3.6	1	0.8
90 days, less than 120	2	0.6		1	1.4			1	0.8
Not reporting	9		2	5		1		1	

[1] Per cent not shown where base is less than 50.
[2] Includes 3 children for whom age was not reported.
[3] Includes 2 children for whom age was not reported.
[4] Includes 1 child for whom age was not reported.

EARNINGS

The earnings of raspberry pickers in the Puyallup Valley were comparatively small. The weekly earnings of 72 per cent of 150 children who had worked 48 hours or more were less than $8, and only 17 per cent of the children who had worked these hours had made as much as $10, whereas most of the children in both the hop and the orchard districts who had worked 48 hours or more had earned at least $10, and more than one-half had earned $12 or more. Raspberry pickers usually earned from 50 cents to $1.50 a day. (Table 25.) About one-third of the children who worked for their parents received pay for their work. The earnings of both those who "hired out" and those who worked for their parents were about the same as the earnings of migratory workers.

TABLE 25.—*Earnings on sample day of children [1] in local and migratory families picking raspberries, by age; Puyallup Valley*

Earnings of children picking raspberries on sample day	Children [1] under 16 picking raspberries on sample day								
	Total		Under 10 years [2]	10 years, under 12		12 years, under 14		14 years, under 16	
	Number	Per cent distribution		Number	Per cent distribution [2]	Number	Per cent distribution [2]	Number	Per cent distribution [2]
Local: Total	[3] 187		20	56		61		48	
Total reporting earnings	[3] 80	100.0	6	20		27		25	
Less than $0.50	9	11.3	4	3		2			
$0.50, less than $1	[3] 33	41.3	2	9		11		9	
$1, less than $1.50	26	32.5		7		12		7	
$1.50, less than $2	11	13.8		1		2		8	
$2, less than $3	1	1.3						1	
No earnings	57		6	14		23		14	
Not reporting	50		8	22		11		9	
Migratory: Total	[3] 344		33	77		105		127	
Total reporting earnings	[3] 325	100.0	30	71	100.0	103	100.0	119	100.0
Less than $0.50	[4] 29	8.9	11	12	16.9	3	2.9	2	1.7
$0.50, less than $1	[4] 126	38.8	13	31	43.7	43	41.7	38	31.9
$1, less than $1.50	122	37.5	6	20	28.2	42	40.8	54	45.4
$1.50, less than $2	38	11.7		6	8.5	11	10.7	21	17.6
$2, less than $3	10	3.1		2	2.8	4	3.9	4	3.4
Not reporting	19		3	6		2		8	

[1] Excludes 93 children in resident families and 15 in migratory families that were not picking raspberries on sample day.
[2] Per cent not shown where base is less than 50.
[3] Includes 2 children for whom age was not reported.
[4] Includes 1 child for whom age was not reported.

All the pickers in the district surveyed were paid by the piece. The rate for a crate of raspberries, each crate containing 24 boxes, varied from 50 to 60 cents and usually a 10-cent bonus per crate was paid to pickers who stayed as long as they were needed. The rates paid for picking "cannery" and "shipping" berries were usually about equal, but occasionally 10 cents a crate extra was paid for picking cannery berries because the baskets for cannery berries are about twice as large as the baskets for shipping berries, although the cannery berries are easier to pick. The rates for picking strawberries and blackberries were somewhat lower, 35 cents for a crate

of blackberries and 40 to 50 cents for a crate of strawberries. All migratory pickers were paid by tickets which were punched after each crate was picked and which on most ranches could be cashed on demand but on some ranches not until the end of the season.

Although many of the pickers said they came to the valley for a "vacation" or to earn pin money, there was much dissatisfaction because of the small amount of money they were able to make, as even adults seldom earned more than $10 a week. Some stated that they had tried berry picking "to see what it was like," but that "there was no money in it" and that they would "never try it again."

SCHOOLING OF LOCAL AND MIGRATORY WORKERS

The school attendance of few local or migratory berry pickers in the Puyallup Valley district included in the study was interfered with by their work in the berry fields. Although the blackberry season, which lasts from the middle of August to October, conflicts with part of the school term, as schools in the Puyallup Valley and also those in Seattle and Tacoma open the first week in September, only nine local children said that they had been absent from school on account of field work. The attendance records of most of the children, both local and migratory, compare very favorably with attendance records of child workers in the other districts surveyed. Practically all the children of compulsory school age had been enrolled in school during the year preceding the survey. Of the 8 children who had not attended school 5 were from Indiana and 3 were members of a migratory family from Kansas. Of the 250 local and 252 migratory workers for whom school records were obtained 86 per cent and 83 per cent, respectively, had attended school at least 90 per cent of their respective school terms. Attendance records of the resident Japanese children, many of whom worked on truck farms, where the growing season lasts six or seven months, were particularly good; 44 of the 48 children for whom records were obtained had attended school 90 per cent or more of the term. Only 17 per cent of the migratory children in the Puyallup Valley, compared with 53 per cent of the migratory children of the Yakima and Willamette Valleys for whom school records were obtained, had missed as much as 20 days of school for any cause. Consequently the progress in school of children working in this area was not affected by their field work. Twenty-one per cent of the local children between 8 and 16 years of age and 25 per cent of the migratory children of these ages were behind average grades for their ages—proportions somewhat lower than the average for city school children. (See p. 16.)

The migratory workers of the Puyallup Valley were less retarded in school than any other group of migratory farm workers included in the Children's Bureau surveys of child labor on farms, probably because the majority are of native parentage as well as because their work does not keep them out of school. Their percentage of retardation was somewhat smaller than that for the Willamette Valley workers, considerably less than half that of the Polish children who go out from Baltimore to work on the Maryland truck farms, and only one-third that of the Italian children who migrate to southern New Jersey to pick berries and vegetables.[3]

[3] Child Labor on Maryland Truck Farms, p. 33; Work of Children on Truck and Small-Fruit Farms in Southern New Jersey, pp. 42, 52.

BERRY PICKERS' CAMPS

As in other districts where migratory workers are employed, the pickers in the Puyallup Valley are housed on the owners' premises. On the berry ranches the camps are generally small, housing an average of about 20 persons per camp. In the largest camp visited the exact number of campers could not be obtained, but it was probably more than 250.

Although many of these children came to the camps with their mothers, in nearly three-tenths of the 220 families represented they were not accompanied by either parent. Fifty-seven children, about half of whom were girls, had no responsible person with them, but were usually with brothers or sisters, or with friends of their own age. In a few camps visited there were no adult workers. One Japanese grower who employed white pickers had three boys and four girls between 14 and 17 years living in his row house, but no adults. Some growers, however, would not employ girls unaccompanied by grown persons.

In some of the smaller camps the pickers were housed in old shacks, barns, or bungalow tents (see illustration facing p. 33), but in most of the camps there were row houses built for the purpose. Many of these houses were shingled and painted; generally they had water-tight roofs, wooden floors raised about 2 feet from the ground, and solid partitions between the rooms. The size of the rooms varied somewhat; most of them were 8 to 10 feet wide, 10 to 12 feet long, and 8 to 10 feet high. Each room had at least one window about 2 feet square. Some of these windows were fitted with glass panes, and some were screened. Each room had also a separate entrance opening on the porch, which ran the entire length of the building. Most of the rooms had two built-in bunks, one over the other, but some of the larger rooms had three bunks, each bunk designed to accommodate two persons. Most of the bunks were filled with straw, and in some of the newer houses they had wire springs. A table was usually supplied for each room, and one stove for every two rooms, the stove usually being on the porch. In one or two houses the porch was boarded in and partitioned, and each family had a stove and a kitchen of its own.

One of the greatest difficulties with housing of this kind, where each room can accommodate from four to six persons, is the fact that a small family sometimes is obliged to share a room with another family. In one camp, for example, a mother and three girls, aged 14, 11, and 9, shared the room with another mother and her boy of 13; in another camp a boy of 13 and his sister of 15 shared their room with a boy of 15. As in the camps of the Yakima and Willamette Valleys, a large proportion of the rooms were overcrowded. In 61 per cent of the families there were three or more persons per room, and in 22 per cent, five or more. (Table 26.) The significance of these figures is more apparent when the size of the rooms is taken into consideration. By the regulations of the Washington State Board of Health air space of 500 cubic feet per person is required in bunk houses.[4] In one of the row houses in this district where the rooms were of comparatively large size (12 feet square and 8 feet high), five

[4] Washington, Rules and Regulations of the State Board of Health, adopted July 27, 1921, sec. 64 (e), par. 19.

rooms were occupied by seven family groups, including 10 adults and 10 children between 8 and 16 years. The average air space per person was 288 cubic feet, much less than the amount of space required by the regulations. Although the regulations of the State board of health have the force of law no attempt was made, as far as could be learned, to enforce them in berry pickers' camps in this district.

TABLE 26.—*Average number of persons per room in migratory families living in camps; Puyallup Valley*

Average number of persons per room	Migratory families living in camps		Average number of persons per room	Migratory families living in camps	
	Number	Per cent distribution		Number	Per cent distribution
Total	213	100.0	5, less than 6	25	11.7
			6, less than 7	12	5.6
1, less than 2	30	14.1	7, less than 8	8	3.8
2, less than 3	50	23.5	9, less than 10	1	.5
3, less than 4	50	23.5	10 and over	2	.9
4, less than 5	33	15.5	Not reported	2	.9

Sanitary conditions in most of the berry camps were good. Water, either from the town supply or from private pumping plants, was usually piped to the grounds of the larger camps, and the smaller camps usually had drilled or artesian wells. Toilet accommodations were fairly adequate. One camp had only 1 privy for 40 persons and another had 1 for 24 persons, but most of the camps had more adequate provision. Several of the camps provided shower baths for the workers. One of these was built under the owner's water tank; it had two compartments and hot and cold running water. The camp grounds usually looked clean, although in only a few camps was an employee appointed to clean up the grounds, disinfect toilets, and dispose of garbage, and the responsibility for the condition of the camp usually was left to the campers.

Many workers said they came to pick berries because they wanted an inexpensive "summer vacation." Owners made a special point of advertising the agreeable locations of their camps, the provisions furnished, such as potatoes or other vegetables, and the recreational facilities. In one advertisement for 1,000 pickers it was stated that "the berry industry offers a fine opportunity for mother and children to have the advantage of occupation which will mean an outing and at the same time an earning capacity sufficient to pay expenses." In some camps there appeared to be little recreation except swimming for the boys. Mothers often went back to the city on Saturday nights to do the family washing and to buy supplies more cheaply than they could buy them from the grocers and butchers who called at camp. The lack of suitable recreation for girl pickers is one of the outstanding problems in the camps and one which many berry growers and other residents of the valley recognize. Some of the public-spirited citizens attempted to stop girls from attending public dances by organizing street dances, but objections were raised to these also, and they were later forbidden. For girls who come out from the city unsupervised by any older person there is special need for organized recreation.

CONCLUSION

Children in great numbers work during the harvest season in the hop yards and berry fields of the northern Pacific coast. Some children pick orchard fruits also, though except in some of the prune-raising districts comparatively few work in the orchards, for to pick apples, pears, and peaches requires both more strength and more judgment than to pick small fruits and hops. Many children work on their home farms or on farms in the neighborhood of their homes, or on both, receiving pay as hired laborers for their work away from home. But the majority do not live in the districts where the work is done. In some places, as in the berry-raising areas of the Puyallup Valley in Washington, the migratory workers come chiefly from other parts of the same State or even from the same county, spend a few weeks in the district at the height of the harvest, and return to their homes; in other sections, as in the Yakima Valley, Washington, and the Willamette Valley, Oregon, a large number come from outside the State, and these include many children in families that, with camping outfit and in the family automobile, make a practice of "following the fruit" year after year from the strawberry season in May to the apple harvest in November.

From one-third to two-thirds of the children under 16 years of age enrolled in the schools of the three districts selected for study worked on the farms. Although more than 1,000 migratory child workers were included in the study they represented only a small proportion of the migratory children at work in these three districts.

Unlike the child workers in the truck and small-fruit growing sections of the Atlantic coast, the children working on the Washington and Oregon farms, even those in migratory families, are chiefly of native white parentage. The fathers of less than one-third of the children included in the Children's Bureau study were of European birth, and these had been in the United States a number of years and were as a rule English speaking; only 3 per cent of the families included in the study were Japanese and even fewer were Indian.

Children in this section do not go to work so young nor do they do such varied or difficult work as children who work on the truck farms of the eastern States. Of the 1,803 children included in the study, however, 12 per cent were under 10 years and 34 per cent were under 12 years. The work of both local and migratory children of all ages is confined usually to picking small fruits or hops or harvesting prunes. In the Puyallup Valley district surveyed most of the migratory children were engaged only for raspberry picking, and local children picked chiefly raspberries and strawberries. In the Willamette and Yakima Valleys children harvest hops as well as fruit—87 per cent of the migratory children of this section included in the study and 44 per cent of the local children had picked hops. Comparatively few had picked apples, pears, or peaches, though these are the

principal fruit crops of the Yakima Valley districts. Some of the older children living on farms help in the tillage of orchards or berry fields, or thin fruit, and a few older boys do general farm work, but it is not so customary as on the truck farms of New Jersey, Maryland, and Virginia for children to plow, harrow, and cultivate or even to help with planting, weeding, and hoeing.

Although most of the work was not in itself difficult the working hours were long during the harvest seasons. The great majority of the children who were employed in hop yards or orchards worked more than 8 hours a day. On a sample day of the harvest season, 67 per cent of 967 local and migratory child workers in the Willamette and Yakima Valleys who reported the length of their working day worked more than 8 hours, and 43 per cent, 10 hours or more. A larger proportion of children working as hired laborers than of children working for their parents reported these long hours. The child workers in the Puyallup Valley, most of whom picked raspberries, did not as a rule have such a long working day. Of 542 children reporting hours in this area, 30 per cent, however, had worked more than 8 hours, and 11 per cent, 10 or more. The 10-hour day is much more common in the hop yards and orchards of these districts than on the New Jersey or Maryland truck farms, where 14 per cent and 19 per cent, respectively, of children included in the Children's Bureau studies in these States reported a 10-hour day.

The school attendance of local workers is little affected by the work they do on hops or fruit. Parents who live in the areas surveyed appear to have high standards with regard to their children's education, and many of the local school boards arrange the school terms so that children can work during the prune, apple, and hop harvests and still attend school the entire time it is in session. Absences for farm work of local children living in the three districts were few compared with those of children who work on Atlantic coast truck farms. Four per cent of the 492 child workers of the Pacific coast districts who reported on this question had been absent from school 10 days or more for farm work, compared with 44 per cent and 27 per cent, respectively, of the local child workers included in the New Jersey and Maryland studies made by the Children's Bureau.

On the other hand, the irregular attendance of children in migratory families of the Pacific coast is a particularly difficult problem. Many children leave Portland for the hop-picking season just before school opens and do not return until after the season is over, three or four weeks later. Although children themselves seldom pick apples or train hops, children in migratory families lose a large part of the school year because they migrate with the adult members of the family, leaving their homes for the hop training in March and not returning until after the apple season in November. The most difficult phase of the problem is that relating to children who "follow the fruit" from one county or State to another, staying only a short time in any one place. The percentage of retardation among some of these children was over twice the average among city school children. Although many schools in the fruit and hop growing districts of Washington and Oregon enroll children who are temporarily under their jurisdiction no system of intercounty or interstate cooperation with the object of keeping track of the migrants has been developed. In the districts surveyed there appeared to be

no need for separate schools for children of seasonal workers such as the schools provided for by the California school attendance law,[1] though special classes for these children in the local schools might be desirable.

Serious overcrowding exists in the camps both in the Puyallup and the Yakima Valley in Washington and in the Willamette Valley in Oregon. A regulation of the Washington Board of Health calls for a specified amount of air space per person in frame houses in laborers' camps, but the regulation does not extend to tents, as a similar one in California does, and Oregon has no such regulation for either houses or tents. The Washington regulation was not enforced in the camps visited. The State Industrial Welfare Commission of Oregon has demonstrated by the systematic inspection of camps for fruit and hop pickers during the last two or three picking seasons that State inspection can greatly improve sanitary conditions in camps, and it is probably safe to assume that similar inspections to enforce housing regulations would be equally successful.

In some of the camps for migratory workers in the Puyallup Valley boys and girls hired for harvest work live without adult supervision. In both the Puyallup Valley camps and the larger camps in the hop districts there is great need for organized recreation. In only one of the large camps visited was this need adequately met.

---

[1] California. Statutes of 1921, ch. 691.

Appendix.—WORK OF MOTHERS IN FRUIT AND HOP GROWING DISTRICTS

As the welfare of children, both working children and those too young to work, is to a large extent dependent on the amount of time their mothers can devote to their care, a brief inquiry was made as to the nature and extent of mothers' field work in the three districts. In making this inquiry the Children's Bureau worked in cooperation with the Women's Bureau of the U. S. Department of Labor, which was making a more extensive study of women's work in small-fruit and orchard districts in the State of Washington.[1] Four hundred and seventeen mothers of migratory child workers included in the study and 264 mothers of child workers who lived in the districts surveyed did field work.

LOCAL WORKERS

Of the 264 working mothers whose homes were in the districts surveyed nearly three-fifths were the wives of farm owners. Almost as large a proportion of mothers in farm owners' families as in farm laborers or tenants' families (about three-fifths in all) worked for wages, usually as fruit or hop pickers on neighboring ranches, and many of them also helped on the home ranch. Nearly all the mothers in Japanese and Indian families did field work; approximately half of the mothers in native white families and in families where the father was foreign born worked. Even those who had children under school age worked during the fruit or hop harvest at least.

Like the children, the great majority of the mothers whose homes were in the Yakima and the Willamette Valley districts worked only at harvest time, but of the 94 who lived in the Puyallup Valley more than two-fifths, including most of the Japanese mothers, did general farm work, such as hoeing and weeding, and a few pruned or trained berry bushes. The only harvest work of the majority of the mothers in the Puyallup Valley region was berry picking, but in both the Yakima and the Willamette Valley the women did a great variety of harvesting. Of the 170 mothers living in the districts studied in the Yakima and Willamette Valleys, nearly half (considerable numbers in each valley) picked hops; two-fifths (more in the Yakima than in the Willamette Valley) picked orchard fruit; the majority in the Willamette Valley also picked berries or prunes. In none of the districts was their work as a rule so continuous as that of their older children, and it was concentrated in the rush seasons when the help of everyone was needed to get the fruit to market. More than half of the 211 mothers in the three districts who reported the duration of their field work had worked 30 days or more, about one-fifth had worked 60 days or more, and some of the Japanese mothers in the Puyallup Valley had worked several months.

The working day of mothers in the berry fields of the Puyallup Valley and in the prune orchards of the Willamette Valley was not very long (usually less than eight or nine hours a day), but the working day of those who were picking hops, in both the Willamette and Yakima Valleys, and of those who were picking orchard fruit in the Yakima Valley were likely to be extremely long. (Table 27.)

[1] Women's Bureau, U. S. Department of Labor: Women in the Fruit-Growing and Canning Industries in the State of Washington. Publication No. 47. (In press.)

TABLE 27.—*Hours of field work of mothers in local families on sample day in the harvest season, by district; Willamette, Yakima, and Puyallup Valleys*

Hours of field work on sample day	Working mothers				
	Total		Willamette Valley	Yakima Valley	Puyallup Valley
	Number	Per cent distribution			
Total	264		86	84	94
Total reporting	183	100.0	66	55	62
Less than 6 hours	35	19.1	14	3	18
6 hours, less than 8	33	18.0	9	3	21
8 hours even	27	14.8	14	3	10
More than 8 hours, less than 9	13	7.1	8	2	3
9 hours, less than 10	27	14.8	17	5	5
10 hours, less than 12	48	26.2	4	39	5
Not reporting	81		20	29	32

Because mothers living in the areas surveyed did not as a rule work more than a month or so and worked only during certain seasons, the problem of caring for their children was not a difficult one. Mothers who worked on the home farm, especially those who worked in prune orchards and berry fields where hours were irregular, could take their children to the fields and look out for them there. But mothers who worked in neighbors' orchards or in large hop yards were obliged to leave their younger children at home, usually in the care of an older child. Twenty-eight of the 81 working mothers who had children under 6 years of age left them at home while they worked, usually entrusting them to the care of another child, sometimes to a child under 12 years of age; other mothers took the children to the fields.

MIGRATORY WORKERS

In a considerable proportion of the families that migrated to the Puyallup Valley and in a small proportion of those that migrated to the other areas the mothers had remained at their homes, in some cases at least, to avoid bringing young children to the camps. Of the 446 mothers in migratory families who accompanied their children to the fruit districts, 417 (93 per cent) worked in the fields. Occasionally mothers who had brought young children with them did no field work but stayed in camp while their older children worked.

Whether or not the migratory mothers worked more than two or three weeks on more than one crop depended, of course, on the number of places to which they migrated and on whether they had worked on farms at home. The mothers did much the same kind of work as their children and worked approximately the same length of time. The majority of mothers who migrated to the Puyallup Valley worked only during the three weeks of the raspberry harvest, though some also worked during the strawberry and blackberry harvests. The majority of the 152 mothers who came to this district had worked less than 30 days during the year, but one-fourth had worked longer than this, including 12 mothers who had worked 60 days or more. In the other two districts, mothers, like their children, did a greater variety of harvesting, the work extending over a somewhat more prolonged period. Most of the 265 migratory mothers working in the Yakima and Willamette Valleys had picked hops, more than two-fifths (43 per cent) had picked berries, and nearly one-fourth (23 per cent) some kind of orchard fruit. Others had harvested prunes, and a few had harvested flax, thinned apples, or trained hops. Nearly one-tenth had done general field work, such as hoeing or weeding; these included some of the Russian-German mothers who had worked on sugar beets at home. Although many of the mothers had worked only during the three weeks of the hop season a considerable proportion who had picked berries or orchard fruit as well as hops had worked longer. More than two-fifths of the mothers migrating to these two districts had worked 30 or more days, and more than one-tenth 60 days or more.

While living in camp mothers usually worked in the fields every day except Sunday, although they sometimes took Saturdays or a half day now and then to do washing and household chores. In the Yakima and Willamette Valleys, on a sample day in the harvest season, when the majority of mothers were in the hop yards but some were working in the orchards, seven-tenths had worked 9 hours or more, and more than two-fifths, including almost all the mothers working in the Yakima Valley district, had worked 10 hours or more. In the raspberry fields of the Puyallup Valley hours were as a rule not so long. Although mothers in this district were likely to work a longer day than their children, not quite half had worked as much as 9 hours. (Table 28.)

TABLE 28.—*Hours of field work of mothers in migratory families on sample day in the harvest season, by district; Willamette, Yakima, and Puyallup Valleys*

Hours of field work on sample day	Working mothers				
	Total		Willamette Valley	Yakima Valley	Puyallup Valley
	Number	Per cent distribution			
Total	417		204	61	152
Total reporting	401	100.0	191	58	152
Less than 6 hours	66	16.5	30	3	33
6 hours, less than 8	42	10.5	19	1	22
8 hours even	32	8.0	6	7	19
More than 8 hours, less than 9	13	3.2	10		3
9 hours, less than 10	111	27.7	64	1	46
10 hours, less than 12	132	32.9	61	43	28
12 hours and over	5	1.2	1	3	1
Not reporting	16		13	3	

Of the 417 working mothers in the three districts 28 per cent had children under 6 years of age in the area. Two day nurseries were provided by the management of the largest hop yard in the area, equipped with swings, slides, and other apparatus for the children's amusement. A matron looked after the children and distributed milk free twice a day. In no other camp was there any provision for the children's care, but some of the camps were situated in open spaces where there was plenty of room for children to play. One-third of the mothers included in the study in the three districts left their children to play about the camp while they went to work, sometimes in charge of an adult but usually in care of older children. In the large and well-organized hop yards workers are not allowed to bring young children into the rows, but in the smaller hop yards and berry fields, where the rules about bringing children to the field were not so strict, mothers brought their children to work with them, allowing them to play in the rows or about the edge of the fields where they could watch them. Sometimes babies were left asleep with apparently no caretaker, in the automobiles in which pickers had come to work, and 9 of the 115 working mothers in migratory families included in the study left their children either alone or in charge of children under 8 years of age.

○

BOSTON PUBLIC LIBRARY
3 9999 05708 4756

JUN 2 1 1927